15

NAGPUR.



Bemrose, Collo., Derby.

TEMPLES ON RAMTEK HILL.

CENTRAL PROVINCES DISTRICT GAZETTEERS

NAGPUR DISTRICT.

VOLUME A.

DESCRIPTIVE.

EDITED BY R. V. RUSSELL, I.C.S.

BOMBAY:
PRINTED AT THE TIMES PRESS.

1908.

PREFATORY NOTE.

The extant Settlement Reports on the Nāgpur District are those of Mr. A. B. Ross (1869) and Mr. R. H. Craddock (1899). A large part of the Gazetteer has simply been reproduced from Mr. Craddock's Report, including the description of the District, the notice of climate, several notices of castes, a part of the chapter on Agriculture and that on Land Revenue Administration with numerous other quotations. The description of the Bhonsla dynasty and of the occurrences during the Mutiny is taken from Mr. M. Low's interesting article on the Nāgpur District in the Central Provinces Gazetteer of 1871; and some details have been added from the collection of papers called 'Sītābaldī,' printed under the direction of Mr. J. O. Miller, when Chief Commissioner. The chapter on General Administration, the article on Nāgpur City and a note on the Material Condition of the People were furnished by Mr. F. Dewar, lately Deputy Commissioner of the District, and constitute an interesting epitome of its recent rapid development. A number of the Gazetteer articles, including those on Saoner, Kātol, Kalmeshwar, Mohpā, Mowār, Narkher, all the articles on rivers, and those on tahsīls, together with the notice of Wild Animals, were contributed by Mr. D. G. Mitchell, Assistant Commissioner; and the section on Manufactures by Mr. B. Dé, Assistant Commissioner. The sections on Geology and Minerals were written by Mr. L. L. Fermor of the Geological Survey; that on Communications by Captain Oldham, R.E., and the excellent article on Kamptee by Lieut.-Col. F. A. C. Kreyer, for many years Cantonment Magistrate. The articles on Rāmtek, Nagardhan and Mansar were written from notes drawn up by Mr. Hīra Lāl, Assistant Gazetteer Superintendent. The photographs of Sītābaldī, Ambājheri tank and Government House were given by Mr. J. K. Batten.

NAGPUR, R. V. R.

18th March 1908.

NAGPUR
DISTRICT GAZETTEER.

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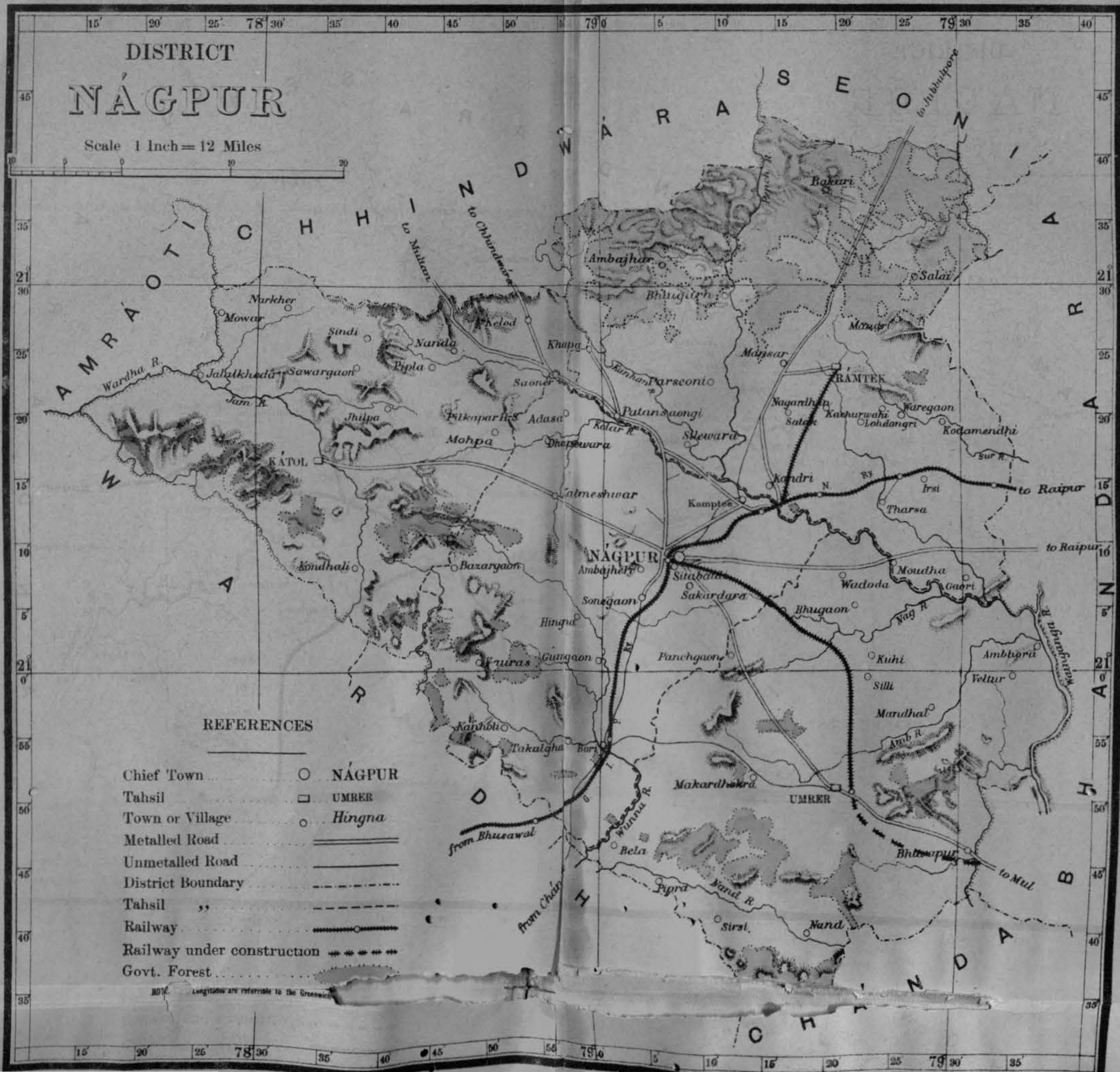
Name of Place—

List of Deputy Commissioners who have held charge of the Nāgpur District, with the dates of their periods of office.

Name of Deputy Commissioner.	Period.	
	From	To
Major J. K. Spence	Aug. 1854	16-11-59
Major R. T. Snow	17-11-59	Dec. 1861
Lt.-Col. I. G. Balmain	Jan. 1862	25-6-62
Captain J. H. Ashburner	26-6-62	8-9-63
Major J. B. Dennys	9-9-63	July 1864
M. Low, Esq.	Not	available.
J. L. Lock, Esq.	28-3-66	28-6-66
Major E. M. Playfair	28-8-67	2-10-67
	7-3-68	1-5-69
Major T. H. Newmarch	1-7-68	19-2-69
Major F. Fenton	Nov. 1868	Apl. 1871
Captain M. P. Ricketts	28-4-72	17-3-73
Major T. H. Newmarch	18-3-73	15-12-73
Major C. B. Lucie Smith ...	5-12-73	5-9-74
	15-11-74	27-3-75
Captain J. W. MacDougall	5-9-74	14-11-74
Major C. B. Lucie Smith	15-11-74	27-3-75
Captain J. W. MacDougall ...	18-6-75	9-7-75
	1-3-76	10-3-76
Col. H. F. Waddington ...		
Col. F. L. Magniac	Not	available.
Col. J. B. Dennys		
F. Venning, Esq.	23-7-76	14-10-78
Captain J. W. MacDougall	15-10-78	3-1-79
F. Venning, Esq.	4-1-79	2-3-79
Major M. M. Bowie	23-3-79	30-7-81

List of Deputy Commissioners who have held charge of the Nāgpur District, etc.—(concld.).

Name of Deputy Commissioner.	Period.	
	From	To
Major T. A. Scott ...	1-8-81	7-12-81
	20-1-82	5-4-82
Col. H. J. Lugard	6-4-82	5-5-87
Col. C. H. Grace	25-4-87	13-4-90
Col. T. A. Scott	14-4-90	17-11-90
	29-1-91	19-6-92
A. D. Younghusband, Esq., I.C.S. ..	June 1892	Sep. 1892
Col. T. A. Scott	Oct. 1892	20-3-93
A. D. Younghusband, Esq., I.C.S. ...	21-3-93	25-6-93
W. A. Nedham, Esq.	26-7-93	30-3-97
E. R. K. Blenkinsop, Esq., I.C.S. ...	1-4-97	25-11-97
J. A. C. Skinner, Esq., I.C.S. ...	26-11-97	14-7-98
H. F. Mayes, Esq., I.C.S.	15-7-98	20-11-99
A. L. Saunders, Esq., I.C.S.	21-11-99	10-3-01
F. S A. Slocock, Esq., I.C.S. ...	11-3-01	2-2-02
J. Walker, Esq., I.C.S.	3-2-02	1-3-02
A. B. Napier, Esq., I.C.S.	1-3-02	7-4-02
J. Walker, Esq., I.C.S.	8-4-02	31-7-02
E. A. De Brett, Esq., I.C.S.	1-8-02	16-10-02
J. Walker, Esq., I.C.S., C.I.E. ...	17-10-02	10-6-04
A. E. Nelson, Esq., I.C.S.	11-6-04	8-7-04
J. Walker, Esq., I.C.S., C.I.E. ...	9-7-04	4-8-04
W. N. Maw, Esq., I.C.S.	5-8-04	28-10-04
J. Walker, Esq., I.C.S., C.I.E. ...	29-10-04	19-4-05
J. A. Lathurst, Esq., I.C.S.	20-4-05	3-11-05
J. Walker, Esq., I.C.S., C.I.E. ...	4-11-05	13-3-06
F. Dewar, Esq., I.C.S.	14-3-06	1-5-07
J. A. Bathurst, Esq., I.C.S.	2-5-07	18-7-07
A. B. Napier, Esq., I.C.S.	19-7-07	30-4-08
Rao Bahadur Ramkrishna Raoji Pandit	1-5-08	


DISTRICT
NÁGPUR
Scale 1 Inch = 12 Miles
CHHINDWÁRA
SEONI
AMRAOTI
WARDHA
CHANDA
BHANDARA
to Jubbulpore
to Multai
to Chhindwára
to Raipur
to Raipur
to Mul
from Bhusawal
Wardha R.
Jam R.
Kanhan R.
Kolar R.
Pench R.
Sur R.
Nag R.
Amb R.
Wunna R.
Nand R.
Wainganga R.
Narkher
Mowar
Sindi
Kelod
Nanda
Jalalkheda
Sawargaon
Pipla
Saoner
Khapa
Parsconi
Patansaongi
Silewara
Jhilpa
Pilkapar R.S.
Adasa
Mohpa
Dhapewara
KÁTOL
Kalmeshwar
Kamptee
Kandri
NÁGPUR
Ambajheri
Sitabaldi
Sakardara
Sonegaon
Hingna
Gumgaon
Bhugaon
Wadoda
Moudha
Gaori
Kondhali
Bazargaon
Panchgaon
Kuhi
Silli
Mandhal
Veltur
Ambhora
Kanholi
Takalghat
Bori
Makardhokra
UMRER
Bhiwapur
Bela
Pipra
Sirsi
Nand
Ambajhar
Bhugarh
Bakuri
Salai
Mansar
RAMTEK
Nagardhan
Satak
Kachurwahi
Lohdongri
Waregaon
Kodamendhi
Irsi
Tharsa
Mandri
REFERENCES
Chief Town NÁGPUR
Tahsil UMRER
Town or Village Hingna
Metalled Road
Unmetalled Road
District Boundary
Tahsil ,,
Railway
Railway under construction
Govt. Forest

NAGPUR DISTRICT.

CHAPTER I.

GENERAL DESCRIPTION.

BOUNDARIES AND PHYSICAL FEATURES.

Boundaries and physical features.

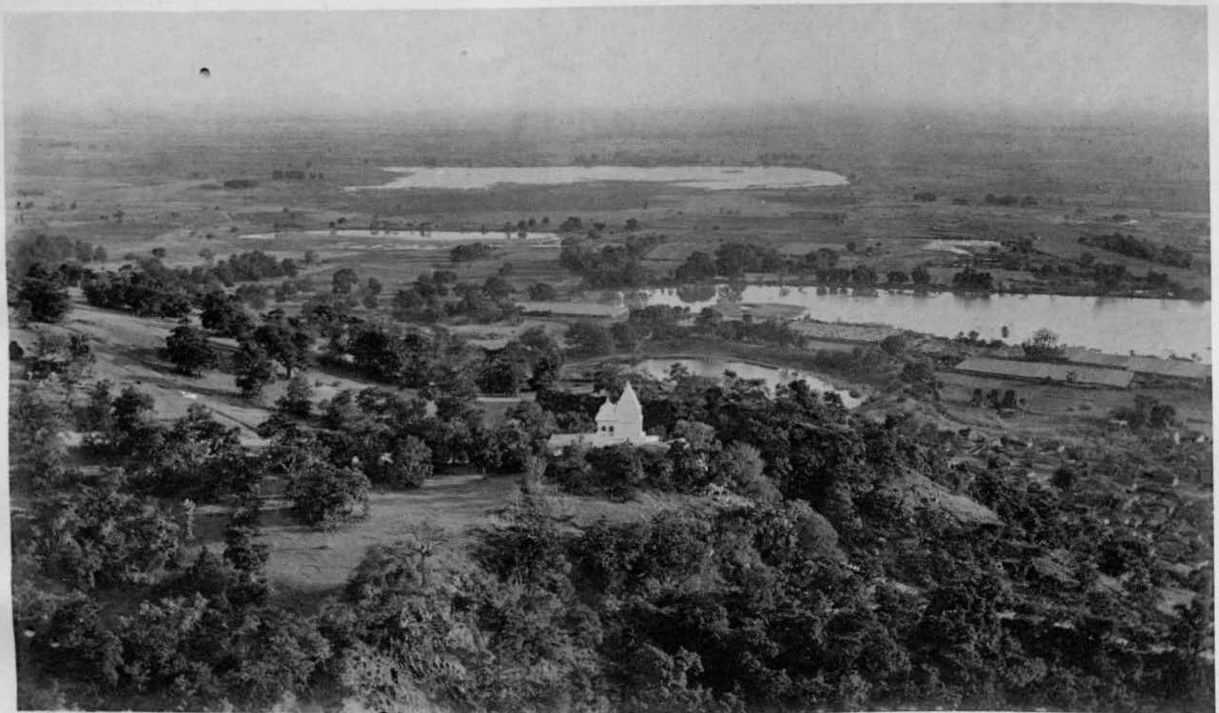
1. The Nāgpur District lies between 20° 35′ and 21° 44′ N. and 78° 15′ and 79° 40′ E. in the plain to which it gives its name at the southern base of the Sātpurā hills. It is bounded on the north by the Chhindwāra and Seonī Districts, on the east by Bhandāra, on the south and west by Chānda and Wardhā, and along a small strip on the north-west by the Amraoti District of Berār. Its area is 3840 square miles, and it is divided into four tahsīls, of which Kātol lies north-west, Rāmtek north-east, Nāgpur in the centre, and Umrer south-east. The greater part of the District is an undulating plain, but it is traversed by low hill ranges. In the north a strip of the Sātpurā hills is included within its limits, narrow on the west, but widening to a breadth of twelve miles or more towards the east. Immediately south of them lies the western extremity of the Ambāgarh hills, on which stand the well-known temples of Rāmtek. On the western border another low range of hills runs down the length of the District and after a break formed by the valley of the Wunnā river, continues to the south-east past Umrer, cutting off on its southern side the valley of the Nānd. A third small range, called [illegible]ār hills, crosses the Kātol tahsil from north to [illegible] detached hills, notably that of [illegible] is visible for a long distance



from the country round. The hills attain to no great altitude, the highest peaks not exceeding 2000 feet, but vary greatly in appearance, being in places extremely picturesque and clothed with forest, while elsewhere they are covered by loose stones and brushwood, or wholly bare and arid. The Wardhā and Waingangā rivers flow along a part of the western and eastern borders respectively, and the drainage of the District is divided between them. The waters of about a third of its area on the west are carried to the Wardhā by the Jām, the Wunnā and other minor streams. The centre is drained by the Pench and Kanhān, which flowing south through the Sātpurā hills, unite just above Kamptee where they are also joined by the Koilār; from here the Kanhān carries their united waters along the northern boundary of the Umrer tahsil to join the Waingangā on the Bhandāra border. To the east a few small streams flow direct to the Waingangā. The richest part of the District is the western half of the Kātol tahsil, cut off by the small ranges described above. It possesses a soil profusely fertile, and teems with the richest garden cultivation. Beyond the Pilkāpār hills, the plain country extends to the eastern border. Its surface is scarcely ever level, but it is closely cultivated, abounds in mango-groves and trees of all sorts, and towards the east is studded with small tanks which form quite a feature in the landscape. The elevation of the plain is from 900 to 1000 feet.

The Sātpurā Hills.

2. The northern range of hills extends along the whole border, being pierced only in two places where the Kanhān and Pench rivers have broken through. On the west it consists merely of the outlying foothills of the Sātpurās, the plateau proper lying behind them in Chhindwāra. But from the Kanhān to the Pench, the Sātpurās themselves enter the District, and the ascent of the Khamārpāni plateau is made in Nāgpur. Along this lenth the hills are well-wooded and



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LANDSCAPE FROM RAMTEK HILL.

picturesque, and there is some striking scenery on the Pench river. The old Gond fort of Bhiugarh stands on this range. The only large block of Government forest in the District is situated on these hills between the Kanhān and Bāwanthari. The cultivated villages are scattered here and there in the river-valleys, and the country is very pleasing and well-wooded, open glades alternating with patches of forest and clearings of cultivation. Mahuā trees and tanks abound, and the Gond villages, with their clean little streets and neat back-gardens, have a far more picturesque appearance than the monotonous mud walls of the more imposing houses in the rich villages of the plain country.

A few miles to the south of the main Sātpurā range are two minor lines of hills to the west and east of the Pench. Those to the west lie between Bhiugarh and Pārseonī, terminating in the peak of Tekāri (1669 feet). East of the Pench are the Mansar hills, both these and the western range being now denuded of trees, and, after a gap of a few miles, come the well-known Rāmtek hills, rising to 1400 feet at Rāmtek. This range has retained its wooded character only owing to the intervention of Government. Three miles east of Rāmtek the Sūr river has forced a passage through the hills, but beyond it they continue as the Ambāgarh range of Bhandāra. The Rāmtek hills terminate on the west in the form of a horse-shoe curve, its inner sides enclosing the beautiful and sacred tank of Ambāla, one of the most charming pieces of scenery in the District. The temple hill at the extremity of the ranges, rising 600 feet sheer above the level of the plain, is at once a landmark to the surrounding country and a vantage ground from which the great Waingangā plain may be seen spread out below, its irregularities of surface softened into smoothness by the height from which one looks down upon it.

Minor ranges.

3. The second main hill tract extends along the south-east of the District from Khargarh on the Wardhā river, where there

are some fine falls, to the junction of Wardhā and Chānda with Nāgpur. They separate the valley of the Kār from that of the Jām up to Kondhāli and further south-east form the watershed between the latter river and the Bor. Near Borī they become the Kauras plateau and here terminate to afford a passage for the Wardhā river, continuing afterwards south-eastwards and dividing the valley of the Nānd from the Waingangā plain. West of the Wunnā the range is mostly well covered with picturesque valleys and ravines, among which are narrow strips of rich well-irrigated land of great fertility. But to the east towards Umrer the range is dwarfed and uninteresting, with low bare hills, grass-covered and boulder-strewn, except where, overlooking the Nānd valley, some excellent teak is grown. The third main range runs northwards through the Kātol tahsīl from Kondhāli to Kelod, separating the Wardhā and Waingangā valleys. The highest part of it is at Pilkāpār. The hills are generally clear of trees, but there is a great deal of cultivation scattered among them, and here and there are found upland plateaus covered with stones, and with soil of varying depth, suitable only for the production of rain crops. Connected with this range is the hill system which divides the Wunnā valley from the Waingangā plain, and bisects the Nāgpur tahsīl. These hills in part striking eastward from the third range, and in front projecting from the Kauras plateau are low and bare. To them belong those dreary stone-covered downs which shut in the station of Nāgpur on the west.

The Wardhā and its tributaries.

4. The Wardhā valley proper includes but a small proportion of the District, consisting of the rich Amner pargana in the north-west of Kātol. But its tributaries drain the bulk of the Kātol tahsīl, a half of Nāgpur and a small part of Umrer. The principal of these are the Bor, the Wunnā, the Jām and the Kār. The Bor rises in the hills near Bazārgaon and rushes down a winding and rocky



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KANHAN RIVER BRIDGE, KAMPTEE.

channel between the Kondhāli uplands and the Kauras plateau, passing into Wardhā to join the Wunnā. Its narrow valley is very fertile and the high well-wooded cliffs on either side render it the wildest and most beautiful spot in the whole of the District. The Wunnā rises near the hill of Mahadāgarh in the Pilkāpār range and flows along the northern base of the Kauras plateau past Hingnā and Borī where it is crossed by the Great Indian Peninsula Railway. It leaves the District at Ashtā. The small Krishnā river joins it at Borī and it was in this stream that the Reverend Stephen Hislop was drowned in 1863 while endeavouring to cross it in flood. The Jām rises among the hills south of Kondhāli and flowing northwards into the centre of the Kātol tahsīl, takes a westerly turn past Kātol and joins the Wardhā at Jalālkherā. The Kār rises in the same range, but flows directly south-west, separating the Wardhā and Nāgpur Districts till it joins the Wardhā river at Khargarh, the trijunction point of the two Districts with Berār. The Nānd flows across a small strip in the south of the District and joins the Wunnā beyond the border of Wardhā.

The Kanhān and its tributaries.

5. The eastern two-thirds of the District belong to the drainage system of the Waingangā and except for the northern range of the Sātpurās consist of an undulating plain of cultivation, broken only by isolated hills and by the hollows and depressions marking the course of the innumerable streams, which traverse its surface and feed the larger rivers. The chief rivers of this tract are the Pench and Kanhān, both of which flow down from the Sātpurā range in the Chhindwāra District, and meet at Kamptee where they are also joined by the Koilār. The upper reaches of the Pench among the hills and jungles north of Bhiugarh afford some pleasing views. The Kanhān, entering the District near Bāregaon, takes a south-easterly course past Khāpa to Kamptee, where it receives the Pench and Koilār and is crossed by two bridges. In its subsequent course it marks the boundary

of the Rāmtek tahsīl, and after receiving the Nāg river near the hills of Bhiukund, finally empties itself into the Waingangā at Gondpiprī in Bhandāra. The Koilār rises in the north-east corner of the Kātol tahsīl, and after passing through the rocky country of Lohgarh in the Pilkāpār range, emerges into the fertile plain of Saoner and separates the Nāgpur from the Rāmtek tahsīl until its place as a boundary river is taken by the Kanhān. Its bed is generally rocky. At Pātansaongī it receives the Chandrabhāga, which brings in the drainage of the Kalmeshwar plain. It is bridged at Dahegaon, where it is crossed by the road from Nāgpur to Chhindwāra. The *doab*[1] of Pārseoni between the Pench and Kanhān, and the *doab* of Pātansaongī on the narrow strip of land enclosed between the Koilār and the Kanhān, are the most fertile and highy cultivated portions of the Rāmtek tahsīl.

Other rivers.

6. The only other rivers of importance are those draining the eastern half of the Rāmtek tahsil, the Bāwantharī, Sūr and Gaotalā-Sānd. The Bāwantharī only passes through the extreme north-east of the District, but it drains the country to the north of Chorbaolī and east of the Seonī road. The Sūr, rising in the hills west of the Seonī road, follows a most erratic course, and after cutting its way through a narrow gorge in the Rāmtek range, flows eastward past Arolī and Kodāmendhī into Bhandāra, where it joins the Waingangā. The Sūr is remarkable for the shallowness of its bed, the level character of the land immediately on its margin, and the fertile properties of this land in producing sugarcane and garden crops. The Gaotalā-Sānd issues from the Rāmtek tank and joins the Kanhān at the south-east of the Rāmtek tahsīl near the hill of Sītapahār.

General characteristics of the rivers.

7. Most of the large rivers, where they flow through plain country, are characterised by high banks and rapid streams when in flood, but in the hot weather they

[1] Land enclosed between two rivers.

are mere rivulets, with here and there deep pools where the bed is rocky and hollows among the rocks have been formed by the action of the stream. The wide wastes of sand which are exposed to the sun's rays during the hot weather months seem in the case of the larger rivers to neutralise the cooling effects of the small streaks of water in the centre of the bed, and the influence on the country around of these rivers, though of course very great, is not directly discernible except in the rugged ravines with short scrub which mark their banks. But their tributaries, the numerous shallow streams with a fringe of vegetation on either side, or winding amidst *sindī bans* or woods of date palm, exercise a more patently beneficial effect on the surrounding lands, which are generally fertile and are kept moist all the year round. Such streams are however only to be found in the most level plains, or in deep valleys among the hills. Over most of the great wheat tract of Umrer, where the more marked undulations of the country cause the water to be carried rapidly away, are deep water-courses absolutely dry during half the year, with bare banks devoid of all vegetation. These become small torrents after each heavy fall of rain, and the fields in their neighbourhood are scoured out of all recognition, despoiled of their soils, and speedily rendered unfit for cultivation.

Scenery.[1]

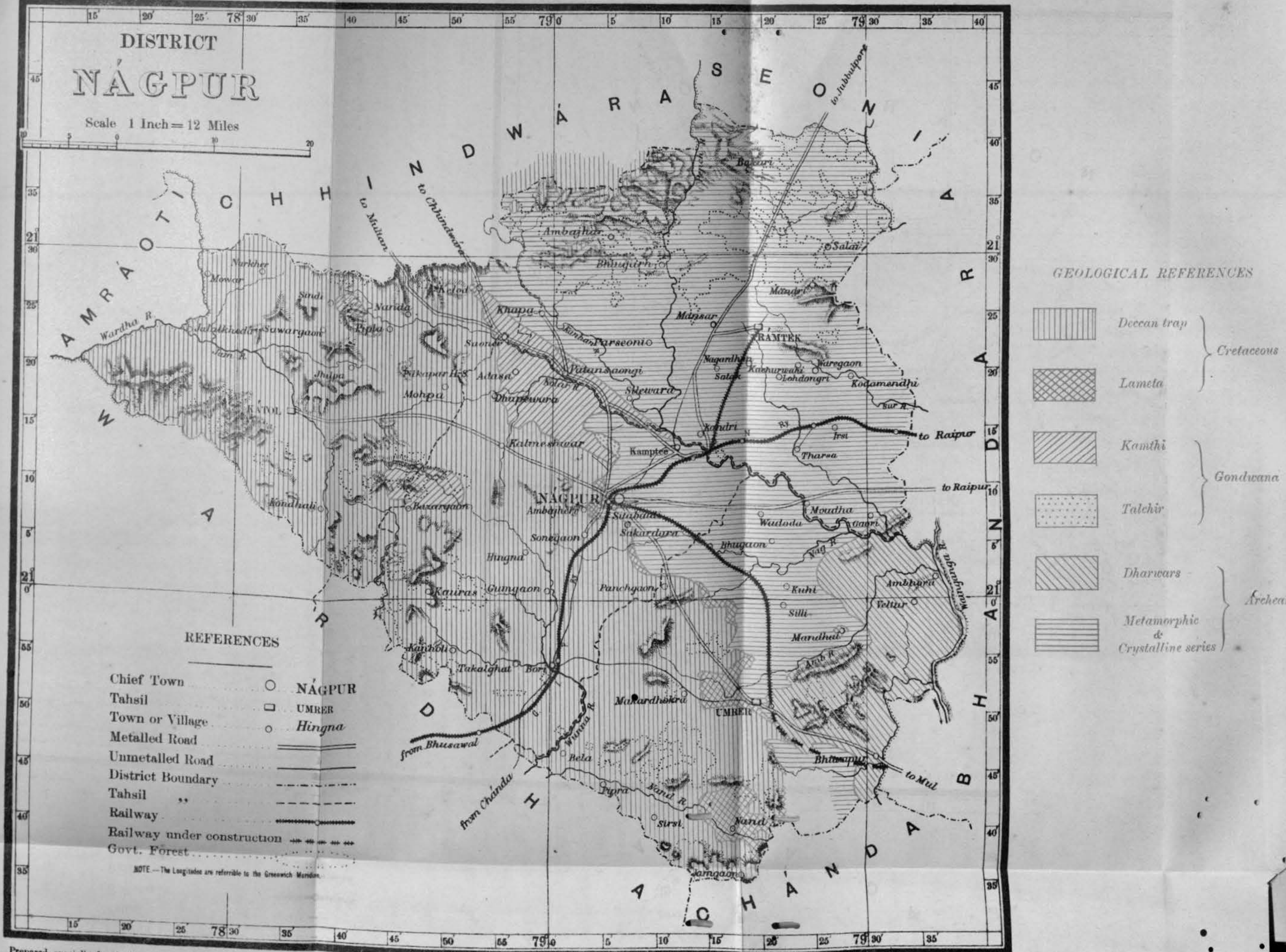
8. 'The ordinary resident of the civil station will not be 'inclined to concede much recognition to the scenery of Nāgpur. The 'waste of dreary downs which hem in the city on the west, or 'confront him if he travels to Umrer, though forming the happy 'hunting-ground of the Nāgpur pig-sticker when he does not 'wish to go far afield, present but little charm to the ordinary resident. They obstruct his vision at all times, and 'deprive him of sleep on the hot weather nights by reason of 'the heat which radiates from their barren sides. But if he

[1] Nāgpur Settlement Report, para. 15.

'likes to tour out into the surrounding country, he will find 'much to charm him. Let him go to Borī and ride up the 'valley of the little river Krishnā to Tākalghāt, and into 'Kānholi. He will find himself among wood-fringed streams 'and amphitheatres of hills. Let him then ascend the 'Kauras plateau by the steep winding path from Kānholi, 'and turn his steps down to the Bor valley at Aregaon 'through the ravine of Mohgaon, and he will be amply 'rewarded for his trouble. He may fancy himself in some 'remote highland glen rather than within twenty miles of 'the desolate Nāgpur ridge lands. And so also if he follows 'the valleys of the Jām or Kār, or explores the upper 'reaches of the Pench, he will be forced to admit that the 'Nāgpur country is not the dreary monotony which he had 'imagined. Or again, he may visit the tanks of Bazārgaon, 'Kelod, or Dongartāl, each reflecting on its surface the 'setting of hills amidst which it nestles. I need not again 'mention Rāmtek, the beauties of which everyone who lives 'in Nāgpur has heard of, if he has not seen.'

Elevation.

9. The elevation of the plain portion of the District is from 900 to 1000 feet. Very few levels except those of the railway stations are available for the open country. Nāgpur post office is 1025 feet above the sea and the Itwāri bazar 983 feet. Sītābaldi hill is 1125 feet high. Kamptee is 1019 feet or practically the same as Nāgpur, Borī 865 feet and Dighorī 918. In Umrer tahsīl Umrer is 956 feet and Bhīwāpur 852. In the Kātol tahsīl only the heights of Pilkāpār (1899 feet) and Khurkī (1997 feet) are known, but the general level is probably a little higher than Nāgpur. This is probably also the case with the Rāmtek tahsīl, but the only elevations of which information is available are those of the northern hills. Nāgdeo is 1931 feet high, Khāpa 1916, Bakāri 1882, Nāgalwāri 1739 and Tekāri 1669. Thārsa railway station has an elevation of 948 feet.


DISTRICT
NÁGPUR
Scale 1 Inch = 12 Miles
CHHINDWÁRA
SEONI
AMRAOTI
WARDHA
CHÁNDA
BHANDARA
to Jubbulpore
to Chhindwara
to Multan
to Raipur
to Raipur
to Mul
from Bhusawal
from Chánda
NÁGPUR
RAMTEK
UMRER
KATOL
Kamptee
Kalmeshwar
Saoner
Ambajhari
Sitabaldi
Sonegaon
Hingna
Kondhali
Mohpa
Khapa
Parseoni
Mansar
Bhiwapur
Kuhi
Mandhal
Moudha
Tharsa
Bela
Makardhokra
Jalalkheda
Narkher
Mowar
Sindi
Narsala
Pipla
Jam R.
Wardha R.
Nag R.
Wunna R.
Kanhan R.
Sur R.
Amb R.
Nand R.
Salai
Silli
Bori
Bazargaon
Gumgaon
Nand
Sirsi
Jamgaon
Irsi
Pipra
Veltur
Ambhora
Kandri
Mandri
Nagardhan
Salak
Lohdongri
Waregaon
Kodamendhi
Bhugaon
Wadoda
Gaori
Panchgaon
Kauras
Kanholi
Takalghat
Dhapewara
Adasa
Patansaongi
Silewara
Pilkapar
Bhiugarh
Khapri
REFERENCES
Chief Town NÁGPUR
Tahsil UMRER
Town or Village Hingna
Metalled Road
Unmetalled Road
District Boundary
Tahsil „
Railway
Railway under construction
Govt. Forest
NOTE.—The Longitudes are referrible to the Greenwich Meridian.
GEOLOGICAL REFERENCES
Deccan trap
Lameta
Cretaceous
Kamthi
Talchir
Gondwana
Dharwars
Metamorphic & Crystalline series
Archean

GEOLOGY.

(L. L. FERMOR).

10. The neighbourhood of Nāgpur is one of the classical geological areas of India. Between the years 1830 and 1864 its geology, minerals and fossils successively received attention from Voysey, Jenkins, Malcolmson, Hislop, Owen, Rupert Jones, A. Murray and Sir C. F. Bunbury. In 1872 the late Dr. W. T. Blanford's paper entitled 'Description of the Geology of Nāgpur[1] and its neighbourhood' was published. In this will be found a bibliography of the papers previously written about the geology of this District.

Introductory.

The area dealt with by Blanford and the previous writers is mainly the belt stretching for a few miles on each side of the junction between the Deccan Trap formation and the metamorphic and crystalline rocks. The main stretch of the latter rocks, forming the eastern portion of the District, was practically untouched until 1903 when I started to examine the manganese-ore deposits of this area. The results of my work have been summarised in the annual reports of the work of the Geological Survey of India for 1903-1904, and 1906[2], and in a paper by myself entitled 'Manganese in India' read before the Mining and Geological Institute of India in 1906.[3]

Other papers dealing with this District that have been published in the Records of the Geological Survey of India are the following:—

(1) W. T. Blanford, 'Coal near Nāgpur', I, p. 26 (1868).

(2) F. R. Mallet, 'On Rhodonite, with Braunite, from near Nāgpur, Central Provinces', XII, p. 73 (1879).

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[1]Memoirs Geol. Sur., Ind., IX, pp. 295-330, with a geological map.

[2]T., H. Holland, Records Geol. Sur., Ind., XXXII, p. 145, (1905); XXXV, p. 39 (1907).

[3]Transactions Min. Geol. Inst., Ind., I, pp. 69-131, X (1906).

(3) M. Neumayr, 'The Intertrappean beds in the Deccan and the Laramie group in Western North America', XVII, p. 87 (1884).

(4) R. Lydekker, 'Note on certain Vertebrate Remains from the Nāgpur District', XXIII, p. 20 (1890).

(5) L. L. Fermor, 'Manganese Ores', XXXI, p. 47 (1904).

(6) L. L. Fermor, 'An unusual occurrence of Common Salt', XXXI, p. 237 (1904).

(7) T. H. Holland, 'Review of the Mineral Production of India during the years 1898 to 1903', XXXII, p. 58 (1905).

(8) P. N. Datta, 'Notes on the Geology of parts of the Valley of the Kanhān River in the Nāgpur and Chhindwāra Disircts, Central Provinces', XXXIII, p. 221 (1906.)

In the following account of the geology of the District, all except the portion dealing with the metamorphic and crystalline rocks is based on Blanford's paper in the Memoirs of the Geological Survey already cited, the remainder being founded on my own observations.

Roughly speaking, the District can be divided into two main areas, namely the country to the west of Nāgpur occupied by the Deccan Trap formation and the country to the east of Nāgpur occupied by the metamorphic and crystalline series; the two other formations, the Lametās and the Gondwānas, are found only along the junction of the trap and crystallines. Blanford says :—

'The town of Nāgpur stands upon the eastern edge 'of the undulating trap country, the cantonment 'and civil station of Sītābaldi being, for the most 'part, built upon the trap itself. The country 'to the west does not rise into hills of any great 'height, though it is interspersed with low ranges, 'and both these and the valleys between are 'covered with black soil, much mixed with stones.

'. . . . . Southward the country is similar to that 'to the west.

'To the south-east, east, and north-east the surface is, 'for the most part, a plain covered with the alluvial 'deposits of the Kanhān and its tributaries.'

To the east this plain extends as far as the eastern boundary of Nāgpur, but in the north-eastern corner of the District the country becomes very hilly and rather wild, this being the area where the crystallines rise to form hills and are seen to the best advantage. The general level of the Nāgpur plain is about 900 to 1000 feet. In the north-eastern corner of the District some of the hills reach nearly 2000 feet.

List of formations. Soil.

11. The geological formations observed in this District are the following:—

(1.) Recent.
(2.) Deccan Trap and Intertrappeans.
(3.) Lametā.
(4.) Gondwānas:—
 (*a*) Kāmthi group.
 (*b*) Tālcher group.
(5.) Archæans (Metamorphic and Crystalline series).

Recent.—In the Archæan area of this District the rocks are often hidden beneath a considerable thickness of alluvial soil, deposited by the tributaries of the Kanhān and the Waingangā. In fact, to the east of Kāmthi along a strip of country stretching for some miles on either side of the Bengal-Nāgpur Railway, exposures of rock are rare. In the trappean areas the soil is usually the black cotton soil known as *regār*, with *kankar*, which is also found in the soils on the Archæan areas.

The Deccan Trap and Intertrappeans.

12. A little more than half of the whole District area is covered by the spread of basaltic and doleritic lavas known to geologists as the Deccan Trap. As usual,

there is a considerable variety among the beds of this formation, some of the layers being dense and compact, and others amygdaloidal and more friable. In the streams draining from the Deccan Trap area the usual agates, jaspers, and quartz crystals are doubtless to be found. In addition to the main area of this formation, there are several outliers to the north-west of Bhiugarh in the northern parts of the District, whilst the southern end of the tongue of trap separating the valleys of the Pench and Kanhān in Chhindwāra just crosses the border into Nāgpur. The part known as the Dongartāl tract, lying to the north of Chorbaolī, has not yet been carefully examined geologically, but it is possible that there are some more trap outliers in this area.

The layers of freshwater sedimentary rock, usually known as intertrappeans, interbedded with the igneous lava-flows of the Deccan Trap, abound to the west of Nāgpur. They vary from a few inches in thickness up to about 5 feet. Blanford notices several occurrences of these rocks, namely at Dhāpewāra, between Bokhāra and Māhurjhari, at Tākli, at Sītābaldī, and near Telinkherī. The character of these rocks is very variable; they may be calcareous, argillaceous, cherty, or composed of trap detritus. From some of the exposures in the Nāgpur District, large numbers of fossils have been collected. The most famous locality is Tākli. The collections made by Hislop, Hunter, and their friends included bones, probably reptilian, remains of a freshwater tortoise, fish-scales, coleoptera, entomostracans and land and freshwater mollusca. The latter include the following genera :—

Bulimus, *Melania*, *Limnæa*, *Succinea*, *Paludina*, *Physa* and *Valvata*.

Among the plant remains Hunter enumerates:—Fruits and seeds, about 50 species; exogenous and endogenous leaves and stems, some of the latter being 6 feet in girth; Roots; and *Chara*.

Lametās or Infratrappeans.

13. The Lametā or Infratrappean rocks are also a fresh-water formation. They are of irregular occurrence, lying immediately beneath the trap, and resting unconformably on the underlying rock, whether Gondwāna or Archaean. They are very frequently absent, so that the Deccan Trap rests directly on the Gondwānas or Archaeans. They are always of small thickness, 25 feet being about the greatest recorded thickness. In composition the rock varies from a sandy limestone to a calcareous sandstone or a proper sandstone, whilst it has in some places been silicified with the formation of chert, and at times takes the form of a clay. A *Baludina* was found by Hislop at Nāgpur, but it cannot be considered certain that it was really derived from the Lametā formation. Amongst the localities at which this formation has been detected, mention may be made of Kelod and Sītābaldī hill; and, further south than Nāgpur, of patches west of Adyāl and at Ketāpur, whilst a very large spread of these rocks, some three to four miles wide, is situated immediately to the west of Umrer. Lametās have also been found fringing the trap outliers in the north-west corner of the District.

The Gondwāna system.

14. The Gondwāna rocks have been divided into two groups in this area, the Kāmthis[1] and the Tālchers.

The Kāmthi group.—This is a group of the Gondwāna rocks to which Blanford gave the name of Kāmthi, after the place where they are so well developed. Blanford says :—
'The Kāmthi beds, on the other hand, are composed of 'grits, sometimes so hard as to be largely quarried for 'millstones, and at other times soft and frequently ferru-'ginous. These are often intersected by bands, in which the 'quartz, etc., are cemented together by peroxide of iron. 'The group also contains sandstones of various kinds,

[1] Named after the town of Kamptee, which is spelt after the Hunterian method in geological publications.

'amongst which fine-grained slightly micaceous beds, white 'in colour, with blotches and irregular streaks of red, are 'abundant; and the fine homogeneous argillaceous rock, 'which, for want of a better name, I have called compact 'shale, yellow below the surface, but becoming deep red 'when exposed. The last bed is very characteristic. So far 'as my examination extended, not a trace of carbon could 'be found; blue and black shales, coal, and clay ironstone 'are all wanting.'

The Kāmthis occupy a stretch of country starting at Kelod on the north-west, and running south-east to Kamptee. This is the line of the eastern boundary of the formation supposed by Blanford to be a fault. The western boundary is the irregular edge of the Deccan Trap formation; and the most southern portion of this outcrop is near Bokhāra and some 4 miles north of Nāgpur. The Kāmthis do not crop out over the whole of this area, being largely obscured by alluvium. At Silewāra, about 5 miles north-west of Kamptee, there is a low range of hills composed of these rocks.

In addition to the main outcrop of the group noticed above, there are two comparatively large inliers in the trap area to the west.

One of these lies to the north-east of Bazārgaon, and is some nine miles long by four broad. The rocks here consist of a considerable thickness of conglomerate, composed of white quartz pebbles set in a matrix of grit, and resting upon beds similar to those of the main area of Kāmthi rocks noticed above. Sparingly interstratified with this conglomerate is a fine red argillaceous sandstone. Blanford thinks that this conglomerate series is a higher portion of the Kāmthi group.

The second of these inliers is at Chorkheri, about 34 miles north-west of Nāgpur. It is about four miles long and three broad, and is composed of the ordinary type of Kāmthis.

The thickness of the Kāmthis has not been determined, but is thought to be at least 5000 feet.

The fossil plants of the Kāmthis comprise *Phyllotheca indica*, *Vertebraria indica*, *Pecopteris*, *Gangamopteris*, *Angiopteridium*, *Macrotæniopteris* (2 species), *Næggerathiopsis*, and 7 species of *Glossopteris*.

From a consideration of the fossils Blanford thinks that the Kāmthis are to be correlated with the upper portions of the Dāmudas of Bengal, namely the Rāniganj group and the ironstone shales; but on account of the lithological differences between the Kāmthis and the rocks of these two groups it is better to keep the Kāmthis separate.

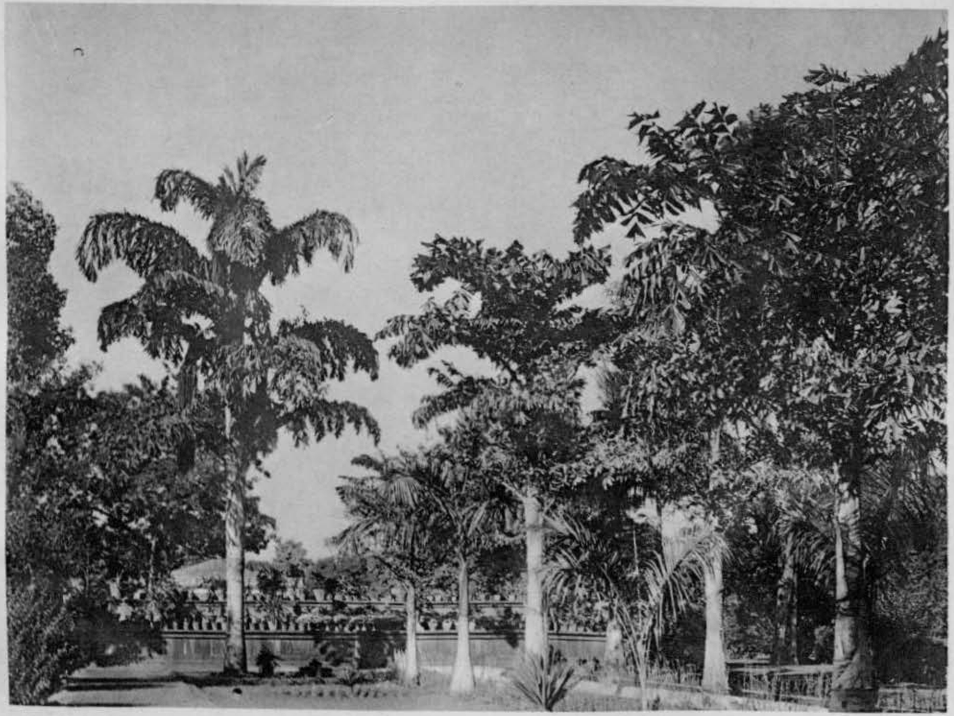
The best localities for fossils in the Kāmthis are probably the stone quarries at Silewāra and Kamptee.

The Tālcher group.—Blandford has noted two occurrences of rocks that are probably to be assigned to the Tālcher group of Bengal and Orissa. One of these is east of Bokhāra and west of Korādi. In addition to some clays and sandstones, the fine silty shales, breaking up into minute flakes, and considered to be characteristic of the Tālchers, are met with. They contain abundant pebbles and boulders, composed of metamorphic rocks of sandstone-quartzite and limestone from the Vindhyans, and of slate of unknown origin. The other occurrence is at Kodādongri, north of Pātansaongi; but it is not so certain that it is of Tālcher age.

Archæan Rocks. Metamorphic and Crystalline Series.

15. About one-half of the District is covered by the Archæan series, comprising a considerable variety of rocks. They may be divided into the most ancient gneisses; the gneisses and schists formed by the metamorphism of the most ancient sediments, known in other parts of India as the Dhārwārs; and probably plutonic granites of later age than the Dhārwārs. In this District, all these rocks have been so metamorphosed that it is a matter of extreme difficulty to distinguish them one from the other, and they may be most conveniently grouped together as the metamorphic and crystalline series. To a large extent, they are very

similar to the Archæan rocks of the Kanhān valley in the Chhindwāra District, which I have described in a paper published in the Records of the Geological Survey of India, Volume XXXIII., pages 159—220, (1906); and practically all that has been said there may be taken as applicable to the Archaean rocks of the Nāgpur District. These consist of typical biotitic gneisses, quartz-pyroxene-gneisses, calciphyres, crystalline limestones, quartzites, mica-schists, hornblende-schists, hematitic schists, pegmatites, and, lastly, the manganiferous rocks. The manganiferous rocks, which are of the utmost importance on account of their relation to the manganese-ore deposits of the District, are really the extremely metamorphosed equivalents of the Chilpī Ghāt series of the Bālāghāt District, the term Chilpī being only a local name for rocks that are in all probability the equivalents of the Dhārwārs of Southern India. To this manganiferous portion of the Dhārwārs I have given the name of the *gondite* series, after the tribe of aborigines known as the Gonds, who form such an important portion of the population of the manganese-bearing zone of the Central Provinces. Typical *gondite* is a rock composed entirely of quartz and the manganese-garnet spessartite. Amongst the rocks of the *gondite* series are to be found many rare and interesting minerals, some of the species new to science. The new species that have been found in this District are ***blanfordite***, a beautiful manganese-pyroxene from Kācharwāhi and Rāmdongrī and *vredenburgite*, a strongly magnetic manganese-ore found at Beldongrī. Particulars as to the manganese-ore deposits will be found in the section dealing with the minerals of the District. Of the other minerals found in the manganiferous rocks, rhodonite and piedmontite deserve mention. A very fine exposure of crystalline limestones containing piedmontite nodules and grains is to be seen in the Pench river at Ghogrā (or Gokulā), about two miles north-east of Pārseonī.



Bemrose, Collo., Derby.

SAGO PALMS, TELINKHERI GARDENS.

BOTANY.

16. The plains in this District are under cultivation and are usually of a park like appearance owing to the scattered individuals or groves of tamarind, mango, mahuā and other fruit trees. The courses of the streams are fringed with lines and clumps of date-palm, and the most common tree of the open country is the *babūl* (*Acacia arabica*). The hills that separate the various plains and valleys are at times bare except for a few grasses and stumpy shrubs, such as *Flueggea*, *Phyllanthus* and the like, or are clothed with a sparse jungle of which *Boswellia* is the principal constituent with little or no undergrowth or grass. The forests are mainly situated on a large block on the Sātpurā hills to the north-east, while smaller isolated patches are dotted on those extending along the south-western border. The forest growth varies with the nature of the soil, *sāj* (*Terminalia tomentosa*), *achār* (*Buchanania latifolia*) and *tendū* (*Diospyros tomentosa*), being characteristic on the heavy soils, teak on good well drained slopes, *sālai* (*Boswellia serrata*) on the steep hillsides and ridges, and satinwood on the sandy levels. Mixed with these are *Anogeissus latifolia*, *Adina cordifolia*, *Butea frondosa* and other similar trees. The scrub growth consists of shrubs such as *Woodfordia*, *Antidesma*, *Cleistanthus*, *Grewia*, *Nyctanthes*, with stunted *Diospyros* and other trees.

Botany.

WILD ANIMALS AND BIRDS.

(D. G. MITCHELL.)

17. At one time the District was famous for its big game, and in military circles Kamptee was one of the most popular stations. It is not twenty years since a bison was shot on the Kamptee rifle range. But the clearance of the forests, combined with indiscriminate methods of slaughter of the native hunters, have rendered Nāgpur probably the worst District in the Province for shooting, though during the last two or three years the rules enforced for the preservation of game have tended to produce some improvement.

Wild animals.

Of the larger carnivora the tiger may frequently be found in the Pench valley and among the hills on the north of the District, but the sportsman can never set out assured of the success of his expedition. Stray tigers have been reported from Veltur in the Umrer tahsil and Saongā Lohāra in Kātol, but neither of these places are regular tiger-haunts. The small panther is quite common throughout the District, but the large variety is rare and only found in the forest reserves of Rāmtek. In the cold weather of 1907 no fewer than four panthers infested the small village of Thāturwāra in Kātol, and one of them attacked a man. The Nāgpur panther is a mean village thief who hangs around the *basti* or village site, and picks up goats, puppy dogs, and such-like, and he frequently meets with a fitting death from the cudgels of the aggrieved villagers. Hyenas are fairly common, especially where there are patches of forest near scattered villages. They steal kids and calves, and have been known to snatch children boldly out of the village street. The cultivator dislikes the hyena quite as much as the panther, and does not hesitate to ascribe his ravages to the latter animal if there is a sportsman in the neighbourhood. Wolves have been seen occasionally along the Pench valley, but they never attack man, and there is no record of any having been shot. Wild dogs sometimes visit the hills of the north. Jackals abound in every part of the District, and foxes are common; both occasionally lend a little excitement to a morning's march. The jungle cat may be found anywhere among rocky woodlands and is a frequent and sinister attendant on peafowl.

The common black bear may frequently be met with along the upper reaches of the Pench, where he finds plenty of shade and moisture, and is occasionally seen in Veltur jungle and in the reserves round Kondhāli, where there are many mahuā trees. Pig abound everywhere, to the great detriment of the crops. The villager of this District does not know the Gond device of trapping them, and his clumsy muzzle-loader

which he keeps ostensibly for crop protection is of very little service against the pig's tough hide. The Nāgpur country is generally unsuited to the hoghunter, and the open land round Sindī is now the only really suitable tract for the enjoyment of the sport. The old established Hunt Club, which has its headquarters at Nāgpur, usually meets across the border in Wardhā. Hare are met with in all parts, but are not numerous.

Among the deer and antelope the most common is the black-buck. A few years ago even this persistent animal was almost killed out, but recently its numbers have increased and small herds may now be seen in almost any part of the country. During the open season they are usually to be found among the crops, but in the monsoon they seek firmer ground among the stony uplands. Their horns seldom exceed twenty inches, and twenty-three inches is probably the record of recent years. *Nīlgai* are occasionally seen in the forests of Kondhāli and Saongā Lohāra. A few sāmbhar roam in the Pench valley forests, and there are some in the Kātol reserves, but they are difficult to locate. *Chinkāra* are fairly common in the Kātol tahsil, but the four-horned antelope and the spotted deer are very rare.

Birds.

18. Game birds occur in fair variety all over the District, but good shooting can only be had on a few tanks in the rice country. With the exception of the button quail and the cotton teal, all the game birds are migratory. The scarcity of land birds is largely due to the numerous wandering gangs of Pārdhis, who decoy and snare them in great numbers. In one of their methods the Pārdhi selects a field where he knows there are some quail, and ensconces himself behind a brushwood screen. He imitates the call of the cock quail with astonishing accuracy, and as the belligerent little cocks come up to investigate they are neatly netted and transferred alive to wickerwork cages. Of the land birds the button quail, the rain quail, the rock and sand grouse,

and the common and painted partridge occur throughout the District, but the last mentioned is rare. Of the water birds the jack and painted snipe, whistling and cotton teal, and the red-headed and crested pochard ducks are common on most of the tanks, especially round Rāmtek and Umrer. The blue-winged teal and the Gadwall duck are occasionally found. The Brahminy duck visits most of the bigger streams, and can usually be seen in the beds of the Wardhā and Kanhān.

Peafowl frequent most of the jungles, though never in numbers; spur and jungle fowl are found in the north. The great bustard seems to be finding its way to the District again, and though far from common, may be seen in almost any part, even within a mile or two of Nāgpur. The florican is very rare. The demoiselle crane and the *sāras* crane sometimes come to the larger tanks, but they are not regular visitors. A large flock of demoiselle crane was recently seen flying over Nāgpur. The king curlew or black ibis is fairly common, and the common curlew abundant. The blue rock pigeon, usually so abundant, is not often seen in Nāgpur, and the green pigeon occurs only in small flocks, frequenting pīpal and banyan trees.

Deaths from wild animals.

19. During the 15 years ending 1905 only four persons were on an average killed annually by wild animals and 36 persons died from snake-bite. The average number of cattle killed annually was 118, mainly by tigers and panthers. The returns show that during the same period 2 tigers, 21 panthers, 2 bears and 2 wolves were annually destroyed.

RAINFALL AND CLIMATE.

Statistics of rainfall.

20. The rainfall of the District is registered at each of the tahsīl headquarters and a station is also established on the Ambājheri reservoir. The average fall for the 40 years ending 1906-07 at each rain-gauge station was:—Nāgpur 45½ inches,

Umrer 46 inches, Rāmtek 48 inches and Kātol 39 inches. The mean average for the District during the same period was 45 inches. Though the rainfall in the Kātol tahsīl is on the average the lightest it is also the most regular and so far as past experience goes this area is the most secure. Kātol is the best wooded and most hilly of the four tahsīls if the northern forest tract of Rāmtek, where the rainfall is the heaviest, be excluded. The rainfall is lightest in the west of the District (the cotton *juār* country) and heaviest in the east (the wheat and rice tract) as the Waingangā is approached. The highest District average was 64 inches in 1887-88, and the lightest 16 inches in 1899-00. The highest rainfall recorded at one station was 81½ inches at Rāmtek in 1890-91 and the lowest 8 inches at Umrer in 1868-69. The highest and lowest figures at Nāgpur are 76½ inches in 1883-84 and 14 inches in 1899-00 respectively. During the forty years ending 1906-07 the rainfall of the District exceeded 50 inches in twelve years and was less than 40 inches in nine years. At Nāgpur it was above 50 inches in 18 years and below 40 inches in 13 years. The following figures show the distribution of rain at Nāgpur to the nearest half inch; June 9 inches, July 13 inches, August 10 inches, September 8½ inches, October 2 inches. The average for November is 60 cents, for the three months of the cold weather one inch and 11 cents, and during the three months of the hot weather one inch and 20 cents.

Variations in rainfall.

21. In only two years, 1868-69 and 1899-00, out of the last forty, have severe failures of the regular monsoon rains been experienced. But it constantly happens that the monsoon is late or very weak at the outset, so that the June rain is deficient, and inconveniently long breaks in July and August are of occasional occurrence. But the damage done by such breaks is generally not irreparable and the crops revive if good rain follows. September rain has never entirely

failed, but has been very short in several years, as 1870, 1886, 1895, 1896 and 1899. October rain is very precarious and local, and has failed entirely in ten years out of the last forty, while in twelve other years the falls have been very light or badly distributed. In six years excessive rain has characterised this month. If the rainfall is satisfactory up to the end of September a dry October is of little import. November rain is not required unless Oc ober and the latter part of September have been dry. In twenty-five years out of the last forty November has had no rain.

Influence on the harvests.

22. The [1] most critical period of the year is the quarter from September to November. The climatic conditions of this period make or mar the autumn harvest and exert a great influence on the success of the spring crops. A considerable fall is essential in September with breaks of clear weather, the fall of the last week of September being especially beneficial. The cold weather rains are as a rule advantageous to the spring crops of the District but they must be light and well distributed. The rainfall of the hot weather months is the least important, though some showers at this period are of use by softening the ground and thus facilitating early ploughing. Rain frequently falls during every month in the year, during the hot and cold season as a rule only in showers, but sometimes accompanied with violent storms. Hail falls occasionally in January, February and the early part of March, sometimes in very large stones, doing much damage to the spring crops. In the hot weather light showers of rain may be accompanied by dust-storms of considerable severity. The agriculturist of this District has much to contend with in vicissitudes of climate, yet it rarely happens that the season is consistently or persistently unfavourable. The deficiency of rain in one month is made up by the fall of another and a break partially repairs the damage of a heavy rainfall.

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[1] From paragraph 72 of Mr. Craddock's Settlement Report.

23. An observatory was established at Nāgpur in 1869 at an elevation of 1025 feet. The average maximum and minimum temperatures are 84° and 56° in January, 109° and 82° in May and 88° and 75° in July; the absolute maximum being 95° in January, nearly 118° in May and 105° in July, and the absolute minimum 41° in January, 67° in May and 70° in July. The maximum temperature recorded was 117·7° on 20th May 1883 and the lowest 40·6° on 9th January 1899. The climate[1] of the District is mild and dry, salubrious and distinctly conducive to long life. It enjoys the reputation of being one of the hottest places in India, and during April and May the heat is excessive, but the hot weather, owing to the great dryness of the atmosphere, is not unpleasant. The monsoon months are however not nearly so sultry as is the case in most plain Districts of India and during this period the average temperature in the shade is about 80.° Though the cold weather is as a rule of short duration, the climate during the period from the middle of November to the end of February is extremely pleasant. In this District the latter part of the cold weather is the most healthy season, while the end of the rainy season is the most unhealthy. Both in the cold and hot weathers the skies seldom remain cloudless for very long together, and during cloudy days the temperature rises and the weather becomes close. In the cold weather considerable damage is done to the flowering crops by these clouds and during the hot months they render the nights, usually remarkable for their coolness, most oppressive. Save for the two months of the hot weather (from the middle of April to the middle of June) when the heat is intense and one month (September 15th to October 15th) when the atmosphere becomes steamy and the moist heat is most trying, the climate of Nāgpur is very bearable.

Temperature and Climate.

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[1] The remainder of this notice is reproduced from para. 69 of Mr. Craddock's Settlement Report.

CHAPTER II.

HISTORY AND ARCHÆOLOGY.

History.

Legendary period.

24. According to tradition Nāgpur was included in the kingdom of Ajodhyā when the divine Rāma ruled over it. The Rāmāyana recounts how he traversed the forest of Dandaka, extending from the Jumna to the Godāvari on his way to the hermitage of Sutikshna at Rāmtek. 'Then[1] the Aryan invaders were 'represented throughout these Central Forests by a few 'isolated hermits, who could not even perform their simple 'devotions in freedom from the mockery of the mischievous 'savages among whom they dwelt. The picture of their 'sufferings, given in the Rāmāyana, would be almost 'pathetic if it were not ludicrous. These shapeless and 'ill-looking monsters testify their abominable character by 'various cruel and terrific displays. These base-born wretches 'implicate the hermits in impure practices, and perpetrate 'the greatest outrages. Changing their shapes and hiding 'in the thickets adjoining the hermitages, these frightful 'beings delight in terrifying the devotees. They cast away 'the sacrificial ladles and vessels, they pollute the cooked 'oblations, and utterly defile the offerings with blood. These 'faithless creatures inject frightful sounds into the ears of 'the faithful and austere eremites. At the time of sacrifice 'they snatch away the jars, the flowers, the fuel, and the 'sacred grass of these sober-minded men'.

The Abhīras.

25. The story of Rāma however belongs to the legendary period of Hindu history, occupying the same position as Homer. The oldest architectural remains in the District are believed to be

1. *C. P. Gazetteer* (1870), Introduction, page XLIX, quoting from Muir's Sanskrit Texts.

the circles of stones which are found in a number of villages,[1] and are attributed by the people to the pastoral Gaolīs or Ahīrs. A race of Abhiras or herdsmen are mentioned in inscriptions of the fourth century as living in the country round Mālwā and Khāndesh. In several localities of the Nāgpur plain local tradition tells of the dominance of the Gaolīs, and some of the names of villages in the District as Gaurāla,[2] Mendhe Pathār[3] and Mhāsepathār[4] may be derived from their former encampments. Hislop describes the stone circles as follows :—The vestiges of an ancient Scythian race in this part of India are very numerous. They are found chiefly as barrows surrounded by a circle of stones, and as stone boxes, which when complete are styled kistvaens, and when open on one side cromlechs. The kistvaens if not previously disturbed have been found to contain stone coffins and urns[5]. If these remains in truth belong to a race of nomadic herdsmen who spread over the country and reduced it to subjection, they may have been immigrants from Central Asia like the Sakas who were living in India at about the same period[6] ; these were pastoral nomads of the Central Asian steppes, who were driven southwards by tribes stronger than themselves, and entering India established themselves in the Punjab and at Mathurā, Gujarāt and Kāthiawār. The calendar in common use in the Marāthā Districts is named after them and was instituted by a prince of the Sakas in Gujarāt in 169 A.D. But whether these Abhīras were the same as the Gaolīs of Nāgpur tradition must remain a matter of conjecture.

Vākātaka dynasty.

26. Nāgpur probably formed part of the territories of the Vākātaka Rājput kings, whose dominions included the Sātpurā plateau and Berār. Little is known of this dynasty except the

1 See para. 50 Archæology.
2 Place of cows.
3 Jungle with sheep.
4 Jungle with buffaloes.
5 Quoted in Wardhā Settlement Report, 1867, page 21.
6 Early History of India by V. A. Smith, page 186.

names of ten kings, and the fact that they contracted alliances with other and better-known ruling houses. Their period may have extended from the third to the sixth century and the name of the perhaps semi-mythical hero who founded the dynasty was Vindhya-Sakti.

Shail kings.

27. A copper-plate grant has recently been discovered at Ragholī in the Bālāghāt District by Mr. C. E. Low, Deputy Commissioner, and a translation and commentary on this has been published by Mr. Hīra Lāl, Assistant Gazetteer Superintendent. This grant speaks of a line of kings who possessed the whole of the Vindhya, a name which formerly included the Sātpurā hills. The plate is undated, but may be held on palæographic grounds to belong to the eighth century. These kings had, it is stated, made war with the kings of Gujarāt, Bengal, Behār and Benāres, and had settled in the Vindhya country, making Shrī Vardhanpur their capital. Their family name was Shail, which means 'A mountain'. All the names of the kings given in the Ragholi plate end in *vardhan* and their capital town is spoken of as Shrī Vardhanpur. On this ground Mr. Hīra Lāl conjectures that Nagardhan near Rāmtek, the old form of which was Nandivardhan may have been founded by a king belonging to the dynasty. Nagardhan was a place of importance in ancient times, as is shown by the mention of the Nāgapura-Nandivardhan District in the copper-plate grant of 940 A.D., which is referred to subsequently. Local tradition retains some recollection of Hindu kings, who ruled from Nagardhan. Nothing else at all is known, of the Shail kings however, and any theory concerning them must be based on pure conjecture.

The Rāshtrakūta dynasty.

28. Nāgpur was probably included in the dominions of the Rāshtrakūta kings, whose dynasty dates from about 750 A.D. Copper-plate grants belonging to this dynasty have been found at Multai in Betūl and at Deolī in Wardhā. The Deolī plate is dated A.D. 940 in the reign of

the king Krishna III; it records the grant of a village named Tālapurumshaka in the Nāgapura-Nandivardhan District to a Kānarese Brāhman. Among the boundaries of the village that was granted there are mentioned—on the south the river Kandanā, Kanhanā, or Kandavā ; on the west the village of Mohamagrāma; and on the north the village of Vadhrīra ; and these have been identified by Dr. Bhandārkar with the river Kanhān, the modern Mohgaon in the Chhindwāra District, and the modern Berdī in the vicinity of Mohgaon. Thus even at this early period Nāgpur gave its name to a District, which included Wardhā and the south of Chhindwāra. The supremacy of the Rāshtrakūtas, who have been conjecturally identified with the Rāthor Rājputs, lasted for about two centuries and a quarter. During their predominance the Kailāsa temple at Ellorā was built, the most extensive and sumptuous of the rock-cut shrines, and the period was also remarkable for the bitter rivalry of Hinduism and Jainism, Buddhism being at this period a declining religion in the Deccan[1]. In 973 A.D. the Rāshtrakuta kings were overthrown by another Rājput dynasty, the Chālukyas of Kalyāni.

Apparently, however, the Nāgpur country remained under the Rashātrakūta princes, now occupying a subordinate position as feudatories of the Chālukyas. This is indicated by the Sītābaldī stone inscription, dated in the year 1087 A.D. It mentions the name of the Western Chālukya king, and of a Rāshtrakūta king Dhādibhandak as his dependent. Rāshtrakūta simply means Rāj-kul or the royal family and the native name of Mahārāshtra for Bombay is not improbably derived from this dynasty, Mahā being a prefix and meaning great. The family are called Mahārāshtrakūta in the Sītābaldī inscription.

Ponwār kings.

29. By the end of the 11th century, however, the Nāgpur country appears to have passed out of the hands of the Rāshtrakūta kings into those of the Pramaras or Ponwārs of Mālwā.

[1] V. A. Smith's Early History of India, page 328.

The Prashasti or stone inscription of Nāgpur, dated 1104-05 A.D., mentions one Lakshma Deva who is supposed to have been a viceroy at Nāgpur for the Mālwā king.[1] We know also that princes of this line penetrated to Berār and the Godāvari and even to the Carnatic in the pursuit of conquest. A century before this, Munja, the seventh Rājā of the Pramara line, had sixteen times defeated the western Chālukya king Taila II, but his seventeenth attack failed and Munja, who had crossed the Godāvari, Taila's northern boundary, was defeated, captured and executed about 995 A.D[2]. It is possible that the existing Ponwār caste of the Nāgpur country who have obviously been settled in the Province for a long period and have abandoned the customs of Rājputs, are a relic of this temporary dominance of the kings of Mālwā. According to their own traditions, the first settlement of the Ponwārs was at Nandivardhan or Nagardhan, which as has already been seen, was at that time one of the two chief places in the District; and the ancestors of the Ponwārs were probably the soldiers of the chieftain who ruled at Nāgpur. Not having brought their families with them, they would naturally intermarry with the women of the country, and develop into a separate caste. Mr. Hīra Lāl, Assistant Gazetteer Superintendent, has recently deciphered an inscription at Rāmtek, which goes far to show that Nāgpur was included in the territories of the Haihaya Rājput dynasty of Chhattīsgarh. His account of it is reproduced. The inscription is a long one of about 80 lines and is engraved in beautiful characters on a coating of black cement fixed on to a stone and having itself the appearance of a stone surface. The Haihayas appear to have used this cement for their inscriptions as a second one engraved in it is to be found at Seorīnārāyan. The inscription consists for the

[1] *C. P. Gazetteer* (1870), Introduction, p. liv. Dr. Kielhorn, however, considers (*Epigraphia Indica*, vol. II, part 12, p. 180) that he was himself king of Mālwā.

[2] V. A. Smith, p. 317.

most part of a description of the sacred places of the locality, and the commencement, which gives the genealogy of the kings, is much mutilated. The names of two kings, Simhana and Rāmchandra, together with the word Yādava Vansa can however be read. Now a stone inscription of one Brahmadeva of the Raipur branch of the Haihayas dated in 1402 A.D. states that Brahmadeva's father was Rāmchandra, whose father was Simhana.[1] The same genealogy is given in another inscription of the same king dated in 1413, and there is thus little doubt that the kings of the Rāmtek inscription were the ancestors of Brahmadeva and that the Haihaya armies had penetrated to Rāmtek in the 14th century. We know also that the chiefs of Lānji and Bhandāra paid tribute to the Ratanpur branch of the Haihaya kings in 1114 A. D.[2] and even in the 7th century Chānda is believed to have been included in the kingdom of Mahākosala, the name by which their territories were known.

The Gond princes of Deogarh. Jātba.

30. Nothing except conjecture can be stated as to the history of Nāgpur from this time until the rise of the Gond kingdom towards the end of the 16th century. Deogarh, the headquarters of the old Gond dynasty of Chhindwāra and Nāgpur, is a fortress about 24 miles south-west of Chhindwāra, picturesquely situated on a crest of the hills. For a short period towards the end of its existence, the Deogarh kingdom became of such importance as to overshadow those of Mandlā and Chānda and to take first place among the Gond States. Of its earlier history, practically nothing is known, but here, as elsewhere, popular tradition tells of a Gaolī kingdom preceding the Gonds. The semi-mythical Gond hero, Jātba, who founded the dynasty, was born from a virgin under a bean-plant, and was protected by a cobra, which came and spread its hood over him during the heat of the day, when his mother left him to go

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1 Indian Antiquary, Vol. XXII., p. 83.

2 Inscription of Jājalladeva, Ep. Ind., Vol. I., p. 33.

to her work. When he grew up, he went to Deogarh and took service under the twin Gaolī kings, Ransur and Ghansur, whose favour he gained by the feat of lifting the large castle gate off its hinges with his bare hands. He was ordered to slaughter the buffalo at the next Diwāli festival, but was distressed as to how he should do this, having no weapon but a wooden cudgel. The goddess Devī, however, appeared to him in a dream, and told him that when the moment came his stick would change into a sword of the finest temper, and that after slaughtering the buffalo he should jump on to the royal elephant, kill the kings, and establish himself in their stead. All this came to pass as the goddess directed. Jātba is said to have built the Deogarh fort and also those of Pātansaongī and Nagardhan below the hills. But the existing remains at Deogarh are in the Muhammadan style, and were, no doubt, constructed by Bakht Buland after his visit to Delhi. Mr. Craddock[1] records a local tradition, according to which Deogarh was originally a Gaolī kingdom and was conquered by Sarbashā, a Gond king of Garhā. Jātba, known as Ajānbāhu Jātbashā, was eighth in descent from the founder of the dynasty, and was so called because of the length of his arms, his hands reaching to his knees. It is said that the Emperor Akbar, in whose reign he ruled, came to Deogarh, and that he himself visited Delhi. The kings before Jātba, whose names are mentioned in the tradition recorded by Mr. Craddock, may probably be dismissed as figments of the fancy of some Brāhman chronicler who wished to invest the house of Deogarh with a longer and more dignified pedigree. Jātba himself was only a petty local Zamīndār, and was the first authentic member of the line.

31. Bakht Buland was the third or fourth in descent from Jātba and was reigning in 1700 A.D. This prince went to Delhi and entered the service of the Emperor Aurangzeb. The story

Bakht Buland.

[1] Nagpur Settlement Report, page 14.

goes that he performed some signal exploit and gained favour, and that the Emperor induced him to abandon the rites of Bhīmsen and to adopt the Muhammadan faith, on which he was acknowledged as Rājā of Deogarh under the name of Bakht Buland. Appreciating the spectacle of the civilisation and wealth of the Mughal Empire, he determined to set about the development of his own territories. It was at this time that the Nāgpur country received its first great infusion of Hindu cultivators and artificers, who were tempted away by him from their homes with liberal grants of land. Sir Richard Jenkins says of him that 'He em-'ployed indiscriminately Musalmāns and Hindus of ability 'to introduce order and regularity into his immediate 'domain. Industrious settlers from all quarters were at-'tracted to Gondwāna, many thousands of villages were 'founded, and agriculture, manufactures and even com-'merce made considerable advances. It may with truth be 'said that much of the success of the Marāthā administra-'tion was owing to the ground work established by him.' Bakht Buland added to his dominions from those of the Rājās of Chānda and Mandlā, and his territories comprised the modern Districts of Chhindwāra and Betūl, and portions of Nāgpur, Seonī, Bhandāra and Bālāghāt. The plateau and plain country were known respectively as Deogarh above and Deogarh below the Ghāts. Bakht Buland usually resided in Deogarh, except when absent on military expeditions. But he established the modern city of Nāgpur on the site of some hamlets, then known as Rājāpur Bārsa. At this time the kingdoms of Chānda and Deogarh were attached to the Sūbah of Berār, and an officer had resided at one of the hamlets, then existing on the site of the present city of Nāgpur, for the purpose of collecting the tribute on the part of the Faujdār of Paunār. Towards the end of Aurangzeb's reign, when the empire was enfeebled by his long wasting wars against the Marāthās, Bakht Buland seized his opportunity and plundered the Mughal territory on both sides of the

Wardhā. The Muhammadan historian of the Deccan, Kāfi Khān,[1] states that the Emperor on being informed of this conduct of Bakht Buland, ordered that his name, which had the meaning 'Of high fortune' should be changed to Nigūn Bakht or 'Of mean fortune'; and that he also sent Prince Bedār Bakht with a suitable force to punish him. Nothing however is known to have come of this undertaking.

Fall of the Deogarh dynasty.

32. The next Rājā of Deogarh was Chānd Sultān, who resided principally in the country below the hills, fixing his capital at Nāgpur which he made a walled town. He continued the liberal policy of his predecessor and under him the wealth of the country so increased as to make it a desirable acquisition to the great predatory Marāthā power already established in Berār. On Chānd Sultān's death in 1739, Wali Shāh, an illegitimate son of Bakht Buland, usurped the throne and Chānd Sultān's widow invoked the aid of Raghujī Bhonsla of Berār in the interest of her sons Akbar Shāh and Burhān Shāh. The usurper was put to death and the rightful heirs placed on the throne. Raghujī retired to Berār, having concluded a treaty with them by which he received eleven lakhs of rupees and several Districts on the Waingangā as the price of his assistance, and was appointed the organ of all communications between the Gonds and the Government of Sātāra.

This was the first direct connection of the Bhonsla family with Nāgpur, although part of Gondwāna had been conquered by Kānhojī Bhonsla as early as 1716. But the country was not destined to remain long without Raghujī's interference. Dissensions between the brothers ripened into civil war. In the year 1742, on one occasion, 12,000 Gonds are said to have been massacred in the fort of Pātansaongī. In the following year (1743) Raghujī was called in to support the elder brother Burhān Shāh. Akbar Shāh was driven into exile and finally poisoned at Hyderābād. Raghujī had

1. Elliot's History of India, Volume VII, page 364.

not the heart to give back to the weaker Gond a second time the country he held within his grasp. He constituted himself Protector, took all real power into his own hands, and making Nāgpur his capital, quickly reduced all Deogarh to his own authority. But still he studiously preserved the show of Burhān Shāh's dignity; whilst in reality he reduced him to the condition of a dependent, having a fixed share of the revenue, and the empty title of Rājā. Burhān Shāh's descendants have continued to occupy the position of state pensioners to the present time, and the representative of the family resides at Nāgpur with the title of Rājā being called Sansthānik.

33. The Bhonslas. Raghujī I. The founder of the Bhonsla family was Mūdhoji Patel of Deor, in the Sātāra District, from which place the present representative of the family derives his title of Rājā. The correct spelling of the family name is Bhosle and it is derived from Bhosā, a village near Bombay. Mūdhojī is said to have been a Silladār or leader of horse under the great Sivaji, and of his 3 sons—Bāpuji, Parsojī and Sābajī—Parsojī rendered distinguished military service in the early Marāthā wars, and as a reward was entrusted with the right to collect *Chauth*[1] in Berār. He died in 1709 and was succeeded by his son Kānhojī who was soon displaced by his cousin Raghujī, a grandson of Mūdhojī's second son Bāpujī. Raghujī was the first and most distinguished of the Bhonsla rulers of Nāgpur. He had plundered the country from Berār up to the gates of Allahābād. In 1740 he made a raid on the Carnatic, and immediately afterwards commenced a series of expeditions to Bengal, which terminated after a contest of ten years in the acquisition to the Marāthās of Cuttack and the promise of twelve lakhs annually from Ali Vardi Khān as the *Chauth* of Bengal. In the meantime Raghujī established himself in Nāgpur, where he reigned nominally as the representative of the Gond prince from 1743 to 1755. By 1751 he had effected the conquest

[1] The fourth of the revenue claimed by the Marāthās.

of the Deogarh territories, Chānda and Chhattīsgarh. Ratanpur, the capital of the Haihayavansī kingdom, capitulated without a blow in 1741 on the advance of the Marāthā General, Bhāskar Pant, and four years afterwards, with the deposition of the last Rājā, a Rājput dynasty whose annals carried it back to the commencement of the Christian era, ignominiously ended. The fort of Chānda was delivered up to Raghuji by the treachery of a Dīwān in 1749 and two years later was finally ceded to him. Raghujī died in 1755. The countries under his dominion or paying him tribute may be generally described as extending east and west from the Bay of Bengal to the Ajanta hills and north and south from the Nerbudda to the Godāvari. His army was principally composed of horse. His standing force was about 15,000, but was liable to be augmented every year according to the exigencies of the moment. Bold and decisive in action Raghujī was the perfect type of a Marāthā leader. He saw in the troubles of others only an opening for his own ambition and did not even require a pretext for plunder and invasion. The reign of Raghuji I. is chiefly important in the history of Nāgpur because with him came that great influx of the Kunbis and cognate Marāthā tribes which altered the whole face of the country and the administration of the land, as well as the language of the people.

Jānojī.

34. Raghujī was succeeded by his son Jānojī, though not without opposition from another brother Mūdhojī. The matter was referred to Poona; the former was confirmed in the sovereignty of Nāgpur, with the title of Senā Sāhib Sūbah, while Chānda and Chhattīsgarh were given as an appanage to Mūdhojī. Jānojī turned all his attention to settling the territory left him by his father. He and his kingdom sustained no injury by the battle of Pānīpat, but rather from the terrible losses of the other Marāthā princes he became relatively stronger. Soon after this the Nizām, taking advantage of the minority of the Peshwā, Mādho Rao, attacked his

territory. Jānojī was bought off from an alliance with him by the promise of the *Sirdeshmukhī* and full liberty to plunder his brother at Chānda; but though he abandoned the Mughals, he afforded no aid to the Peshwā. The Nizām in that year was successful and dictated peace almost at the gates of Poona in 1762. Next year however, he broke through his territories and gained over Jānojī to join him. Together they sacked and burnt Poona. This was not the last of Jānojī's treachery. By the promise of territory yielding 32 lakhs of annual revenue he was induced to betray the Nizām and attack his army in concert with the Peshwā's troops, in consequence of which the Mughals were entirely defeated. The price was paid to Jānojī, but the boy Peshwā did not fail to reproach him with his treachery. He detested Jānojī already and in 1765 united with the Nizām to avenge the sack of Poona. The confederate armies advanced to Nāgpur and burned it and forced the Rājā to disgorge the greater part of the price of his former treachery. Two years later Jānojī was again in arms against the Peshwā, having joined in the rebellion of Rāghoba, uncle of the Peshwā and the Gaikwār. On this occasion the Peshwā advanced through Berār up to Nāgpur, while Jānojī having given him the slip, was plundering around Poona. But he was ultimately obliged to sue for peace, which was concluded in April 1769. In this treaty Jānojī's dependence on the Peshwā was fully acknowledged. He bound himself to furnish a contingent of 6,000 men and to attend the Peshwā in person whenever required; to pay an annual tribute of 5 lakhs of rupees; to enter into no general negotiation with foreign powers and to make no war without the Peshwā's sanction. On his return journey to Nāgpur in May 1772 he died at Tuljāpur on the river Godāvari[1]. During his reign the country of Nāgpur except on two occasions had perfect peace within its boundaries. Jānojī's name is remembered as the settler of what his father only conquered. In his

1. Sir Richard Jenkins, p. 50 and Grant Duff, Vol. I, p. 697.

private life he was easy of access, and most regular in the observance of all duties of state and of religion.

Sābajī and Mūdhojī.

35. After the death of Jānojī, before Mūdhojī, with his youthful son Raghujī the late king's nephew and heir by adoption, could reach Nāgpur, Sābajī, another brother of Jānojī, had usurped the government. During the next two years and-a-half a civil war raged, diversified in 1773 by a short reconciliation and joint government, and characterised by repeated desertion of either party by Daryā Bai, widow of the late Rājā Jānojī, who now supported one claimant to the throne and now the other. The closing scene of this contrast was on the battlefield of Pānchgaon, six miles south of Nāgpur. The fortune of the day had declared for Sābaji, and Mūdhojī was being surrounded by his brother's troops. Flushed with the fight and with victory, Sābajī drove his elephant against that on which his brother was seated, and called on him to surrender. A pistol shot was the only reply. One brother had slain the other, and gained the undisputed regency on behalf of his son, and the title of Senā Dhurandhar[1]. Mūdhojī at once set about restoring order in the affairs of the state, governing wisely and moderately. In the year 1777 he entered with caution into engagements with the English, who were then preparing to support the claims of Rāghoba as Peshwā. He was obliged, however, in order to keep up appearances at Poona to send troops down to Cuttack ostensibly against them. Their march was intentionally delayed, and when they arrived they did not act against the British Government, who were all the time kept informed that this march on Cuttack was a mere pretence. The Regent even assisted the march of Colonel Pearse through his provinces, when a force was being sent from Bengal against Haidar Alī. This display of a conciliatory spirit towards the English happened too at a time when Bengal was denuded

[1] Sir Richard Jenkins, p. 51 and Grant Duff, Volume II, p. 36.

of troops. In 1785 Mandlā and the Upper Nerbudda valley were nominally added to the Nāgpur dominions by a treaty in which Mūdhojī agreed to pay twenty-seven lakhs of rupees into the Poona treasury.

Raghujī II.

36. The Regent died in 1788, leaving all the Nāgpur state tranquil and prosperous; conditions which had lasted within the present Nāgpur District ever since the battle of Pānchgaon. He left great treasure in cash and in jewels to his family. His son Raghujī, though of age and nominally Rājā, had remained during the lifetime of his able father in perfect submission and obedience. He now assumed control of the state. He went to Poona where his titles and dignity were confirmed. He also obtained for his younger brother Vyankājī the father's title of Senā Dhurandhar, with Chānda and Chhattīsgarh as an appanage. Chimnājī, the other brother, was to have had Mandlā, but he died shortly after Raghujī's return to Nāgpur, very suddenly and not without suspicion of foul play. The Rājā took up his residence at Nāgpur, while his troops were fighting in the Peshwā's army against the Nizām and Tipū of Mysore. He participated in all the advantages gained by the Marāthās in these wars, and commanded the right wing of the Peshwā's army at the victory of Khardlā. In the year 1796, when the political condition of Western India was much confused, he seized upon Hoshangābād and the lower Nerbudda valley. In the two following years he had gained the forts of Chaurāgarh, Tezgarh, and Mandlā from the Chief of Saugor, as also the fort of Dhāmoni from another Bundelā chieftain. In 1797 Yashwant Rao Holkar fled for shelter to Nāgpur but found only a prison.

The Nāgpur kingdom.

37. The Nāgpur kingdom was now at its greatest extent and included, under Raghujī II, practically the whole of the present Central Provinces and Berār, besides Orissa, and some of

the Chotā Nāgpur States. The revenue of these territories was about a crore of rupees. Raghujī's army consisted of 18,000 horse and 25,000 infantry, of which 11,000 were regular battalions, besides 4000 Arabs. His field artillery included about 90 pieces of ordnance. The military force was for the most part raised outside the limits of the state, the cavalry being recruited from Poona, while besides the Arabs, adventurers from Northern India and Rājputāna were largely enlisted in the infantry. Up to 1803 the Marāthā administration was on the whole successful. The Bhonslas, at least the first four of them, were military chiefs with the habits of rough soldiers, connected by blood and by constant familiar intercourse with all their principal officers. Descended from the class of cultivators, they ever favoured and fostered that order, and though rapacious were seldom cruel to the people. Of Jānojī, the successor of Raghujī I, it is recorded that the king did not spare himself, being referred to in the smallest as well as the greatest matters of state; nor did any inconvenience or delay to the public service arise from this system, for even when not sitting actually in Darbār the Rājā was always accessible to any person who had business to propound to him. Early in the morning he held his Darbār in an open verandah looking on to the street, visible to the people, and accessible to their personal calls for justice and redress of injuries. He sat on his throne with his sword and shield before him and all the ministers and military chiefs attended and carried on their daily business in his presence. The etiquette of the Court of Nāgpur was never burdensome, the Rājā receiving a stranger of any rank nearly as his equal, rising to take his salute and embrace him. It is noticeable that under the Marāthās no regular judicature existed. The revenue officers could take cognisance of civil and criminal cases, while the headmen of villages had certain minor magisterial powers. In important cases an appeal lay to the Rājā, who decided after discussion in open Darbār as on an affair of state.

38. The reigning prince was far from absolute, and his younger brothers held portions of the kingdom as appanages, with independent courts, while the near relatives of the family had a voice in all matters of moment. The nobles who had seats in Darbār were known as Mānkaris. Some of these were really in the nature of spies upon the Bhonsla prince in the interests of the Peshwā. Of the state functionaries, the Dīwān was the principal minister, representing the Rājā in all departments; the Farnavīs was secretary of the finances, the Warār Pāndya was responsible for the land revenue, the Chitnavīs was general secretary, and the Munshī secretary for foreign affairs. The Sikkānavīs was keeper of the king's seal. Such was the affection of the Marāthās for the hereditary principle that even these great offices descended in the same families; where the proper incumbent was unfit, the department was managed by a deputy but he received a portion of the emoluments for his support. The principal military officers were the Sardaftar or Comptroller of army estates [1] and the Mīr Bakhshī or Paymaster-General. The Sūbahdārs of provinces held military and civil command within their respective local jurisdictions. These officers were for the most part paid by jāgīrs or other grants of land on exceptionally favourable terms.

The Rājā and his officers.

39. During this time the connection of Nāgpur with the Bengal Government had been growing firmer, and in 1798 Mr. Colebrooke was appointed Resident to the court of Raghujī, but he did not arrive at Nāgpur until March 1799. In May 1801 the British Resident, who had vainly endeavoured to enter into a defensive alliance against Sindhia, withdrew from Nāgpur, and Sindhia and Raghujī united together in the year 1803 to

Raghujī joins Sindhia against the British. Peace of Deogaon.

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1. This designation probably refers to the territories allotted for the support of particular garrisons.

oppose the British Government which had now replaced Bāji Rao, the Peshwā, after the treaty of Bassein. This they did in accordance with the wishes and secret directions of Bāji Rao himself. General Wellesley soon brought the confederates to battle at Assaye. Raghujī left the field at the commencement of the battle; Sindhia's troops bore the brunt of the day and suffered very heavily; but at Argaon, a few weeks after, the Nāgpur army under Vyankāji Bhonsla was completely worsted. The fort of Gāwilgarh soon after fell to the British. Meanwhile from the Bengal side Colonel Harcourt had won the whole of Raghujī's province of Cuttack. The price of the peace which he now sued for was heavy; nearly one-third of his kingdom was shorn off, comprising East and West Berār, with Balasor and Sambalpur and its dependencies; while lastly the Rājā was to receive permanently a Resident at his court at Nāgpur, and Mr. Mountstuart Elphinstone was appointed to the post. Before this peace Raghujī's annual revenue had been nearly one crore of rupees, but after the loss of Cuttack and Berār it fell to about sixty lakhs. Before the war he had 18,000 horse, mostly Marāthās of the Poona country, and 25,000 infantry, of which 11,000 were of regular battalions; besides these he entertained a body of 4000 Arab mercenaries. His artillery counted ninety guns, but of these thirty-eight were lost at Argaon. His cavalry were also much reduced after that battle, and after the ensuing peace the regular infantry were never replaced.

During the campaign which Raghujī had undertaken with Sindhia, the Nawāb of Bhopāl had seized on Hoshangābād. This the Rājā recovered in 1807. Sambalpur with its dependencies was restored to him by the English in 1806, but some of the zamīndārs were opposed to the transfer, and their resistance was not overcome until 1808. His kingdom now comprised the Nāgpur Districts, Chānda, Chhattīsgarh with its appanages, Sambalpur, and the Districts on the Nerbudda.

Period of misrule, 1803-1818.

40. From this time Raghujī, nicknamed by his people 'The Big Bania', threw off all restraint in his unwillingness to show a reduced front to the world. Not only did he rackrent and screw the farming and cultivating classes but he took advantage of the necessities which his own acts had created, to lend them money at high interest. He withheld the pay of his troops, advancing them money on exorbitant terms through his own banking establishments, and when he paid them at last, giving a third in clothes from his own shops at most exaggerated prices. When all other means failed he organised regular house-breaking expeditions against the stores of men whom his spies had reported to be wealthy. He owned whole rows of shops in the bazar and the same spirit of avarice and rapacity pervaded his family and his court. Coarse and vulgar in person, he was jealous of everyone and so prying into the minute details of Government that no one served him heartily.

The Nāgpur portion of his dominions now became the scene of frequent contests with the Pindāris and the robber hordes of Amīr Khān. For security against these marauders most of the village forts were built, the remains of which stud the whole of the District. Insignificant as they may now appear many of them have been the scenes of struggles where the peasant fought for bare life, all he possessed outside the walls being already lost to him. Old men spoke forty years afterwards of the hard lot of those days, how they sowed in sorrow, with little hope of seeing the harvest, and how, whenever they did reap, they buried the corn at once in the ground. The boldness of these robber bands became so great that in November 1811 they advanced under Amīr Khān's leadership up to Nāgpur, burned one of the suburbs and only retired when they knew that two British columns were approaching from the Nizām's dominions to drive them back. There is however great reason to believe

that many of the bodies of marauders who plundered the country did not belong to the Sindhia Shāhi or Holkar Shāhi bands of Pindāris, but were portions of the Nāgpur army, which, when they could not be paid from the treasury, were allowed in this way to help themselves. The name of Dharmāji Bhonsla, a bastard son of Raghujī II, is well remembered as a leader in these forages. In this same year Raghujī had been trying to conquer Garhākotā, the possession of a petty chief near Saugor, but Baptiste, one of Sindhia's generals advanced to its relief, and routed the Nāgpur troops. In 1813 the Rājā of Nāgpur entered into a compact with Sindhia for the conquest and partition of the territories of Bhopāl. After besieging the capital for nine months, the confederates had to retire in July 1814, baffled by the energy and heroism of Wazīr Muhammad. Raghujī would have renewed his attempt in the following year had not the Bengal Government declared that this could not be permitted.[1]

Parsojī.

41. Raghujī died in March 1816 and was succeeded by his son Parsojī, a man blind, lame and paralysed. Very soon after his accession the new Rājā became totally imbecile, and it was necessary to appoint a Regent. Bakā Bai, the widow of the deceased Rājā, with his nephew Gūjaba Dāda Gūjar, for some time kept possession of the Rājā's person and the regency, until with the consent of the Mānkaris (Marāthā nobles) and the military leaders Mudhojī Bhonsla, the son of the late Rājā's younger brother Vyankāji, and next of kin to Parsojī, succeeded in becoming regent. While the issue was still uncertain and after being installed as Regent Mūdhojī, or Appa Sāhib as he was generally called, courted the countenance of the new Resident, Mr. Jenkins, and was anxious to get a subsidiary force, for he knew that there was much debt to be cleared off, and that it would be necessary to reduce the strength of the

[1] Sir Richard Jenkins, p. 57.

army; a measure sure to create much discontent. Accordingly on the 28th of May 1816 a treaty of defensive alliance was signed, by which the British were to maintain six battalions of infantry, with cavalry and artillery, while Parsoji was to pay seven and a half lakhs of rupees annually and to maintain a contingent of 2000 horse and 2000 infantry for the purposes of the alliance. It was, however, found in the campaign against the Pindāris in the cold season of that year that the contingent thus furnished by the Rājā was useless. In January 1817 Appa Sāhib went away from the capital under pretence of visiting Chānda on urgent state affairs. A few days after his departure the Rājā was found dead in his bed poisoned, as it subsequently proved, by his cousin Appa Sāhib[1].

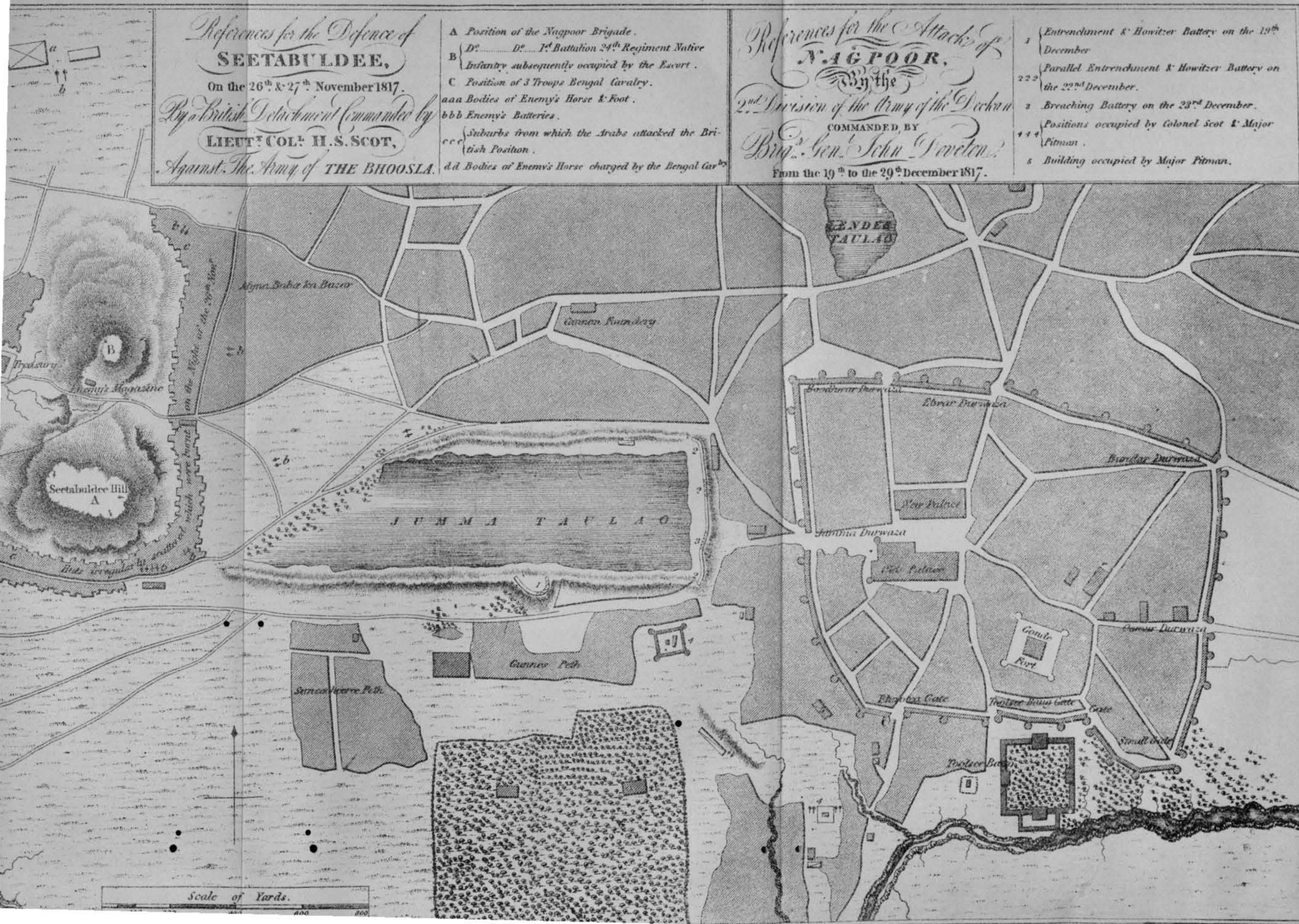
Appa Sāhib.

42. Parsojī had no son, begotten or adopted; consequently, Appa Sāhib, being the nearest relative to the deceased in the male line, ascended the throne before any opposition could be made by Bakā Bai and her party. From this time the bearing of Appa Sāhib, before so cordial to the British, underwent a speedy change. The emissaries of the Peshwā won him over to join with their master in his plots and treachery. He also joined in the schemes of Sindhia, and afforded encouragement to the Pindāris, even proceeding so far as to receive into his presence the emissaries of the notorious Chītu, and to confer on them dresses of honour. All this time, however, he was full of protestations before the Resident of good faith and feeling to the English. During the early part of November the conduct of Appa Sāhib was very suspicious. The Nāgpur troops, which should have been sent on to the Nerbudda to join in the Pindāri campaign, were kept back; there was a force already drawn around the capital of 8000 horse and as many foot; lastly, an active levy of troops from as far even as Mālwā was commenced. The Resident on his part called in the detachment of Colonel

[1] Grant Duff says he was strangled (Vol. II, p. 529).

Scott from Nagardhan near Rāmtek, and messengers were sent to Colonel Gahan to hurry back from the neighbourhood of Hoshangābād. The news from Poona, of the Peshwā having now openly broken from his engagements with the British, reached Nāgpur on the 14th November.[1] On the night of the 24th the Rājā informed Mr. Jenkins that the Peshwā had sent him a *khilat*, with a golden standard, and the high title of Senāpati. He intimated his intention of receiving investiture of title and honours in state on the following day, and invited the Resident to be present at the ceremony. Mr. Jenkins remonstrated, stating that as the Peshwā was at that moment in arms against the English, the Rājā's public acceptance of these marks of distinction was inconsistent with the terms of his alliance with our Government. On the following day the Rājā received the *khilat* in public Darbār, and afterwards proceeded to his chief camp, beyond Tākli, where, in front of his troops, he assumed with every ceremony the dignity of general-in-chief of the armies of the Marāthā empire. The next morning an extreme measure, which had been delayed to the utmost was carried out; the brigade under Lieutenant-Colonel Hopeton Scott moved from its lines at Telinkheri to the Residency, also occupying the double hill of Sitābaldi. This movement was executed only just in time, for a body of Arabs, stationed in a village where now stands the railway station, were only awaiting the final order to secure this position for themselves. Expresses were also sent to call up General Doveton with the second division of the Deccan Army from Berār. The troops with Lieute-

[1] This was the occasion when the battle of Poona between the Peshwā and the British troops took place and in the subsequent operations—the memorable defence of Korygaon. In June 1818 Bāji Rao Peshwā gave himself up to Sir John Malcolm in Nimār. His territories were annexed and Bithūr near Cawnpore was appointed as his place of residence, where he remained till his death in 1851. His adopted son Dhondo Pant, whose succession the British Government refused to recognise, was the Nāna Sāhib of the Mutiny.


References for the Defence of
SEETABULDEE,
On the 26th & 27th November 1817.
By a British Detachment Commanded by
LIEUT. COL. H.S. SCOT,
Against The Army of THE BHOOSLA.
A Position of the Nagpoor Brigade.
B Do. Do. 1st Battalion 24th Regiment Native Infantry subsequently occupied by the Escort.
C Position of 3 Troops Bengal Cavalry.
aaa Bodies of Enemy's Horse & Foot.
bbb Enemy's Batteries.
ccc Suburbs from which the Arabs attacked the British Position.
dd Bodies of Enemy's Horse charged by the Bengal Cavy.
References for the Attack of NAGPOOR, By the 2nd Division of the Army of the Deckan
COMMANDED BY
Brigr. Genl. John Doveton.
From the 19th to the 29th December 1817.
1 Entrenchment & Howitzer Battery on the 19th December
222 Parallel Entrenchment & Howitzer Battery on the 22nd December.
3 Breaching Battery on the 23rd December.
444 Positions occupied by Colonel Scot & Major Pitman.
5 Building occupied by Major Pitman.
Seetabuldee Hill
Treasury
Enemy's Magazine
Huts irregularly scattered which were burnt on the Night of the 26th Novr.
Gunnen Foundery
JUMMA TAULAO
Gunnee Peth
Suneechurree Peth
JENDER TAULAO
Ebrar Durwaza
Bundar Durwaza
New Palace
Jumma Durwaza
Old Palace
Goonle Fort
Toolsee Baug Gate
Gate
Small Gate
Toolsee Baug
Scale of Yards.

nant-Colonel Scott were a brigade of two battalions of Madras Native Infantry, one battalion being of the 20th, the other of the 24th, both much weakened by sickness. There were also the Resident's escort, two companies of Native Infantry, three troops of Bengal Native Cavalry, and four six-pounders manned by Europeans of the Madras Artillery.

The battle of Sītābaldī.

43. The hill of Sītābaldī, standing close over the Residency, consists of two eminences, joined by a narrow neck of ground, about 300 yards in length, of considerably lesser elevation than either of the two hills. The whole surface is rock, so that it was impossible in a short time to throw up any entrenchment. Of the two eminences, that to the north is the lesser, but being within musket range of the principal summit, its possession was of vital importance, particularly as on that side the suburbs of the city came close up to its base, and gave cover to the enemy, who throughout the 26 h were seen collecting. Three hundred men of the 24th Regiment, under Captain Sadler, were posted on the smaller hill with one gun. The cavalry occupied the enclosures about the Residency just below the lower hill on the west; the remainder of the force, scarcely 800 men, were posted on the larger hill. On the evening of the 26th the battle began by the Arabs, from the village already mentioned, opening fire on the position. The engagement lasted till about 2 o'clock in the morning, when it slackened somewhat on the side of the Marāthās. Several times during the night the Arabs had come on, sword in hand, and tried hard to carry the smaller hill, but were repulsed every time, though at the cost of many lives to the defenders. Time after time as the ranks of the 24th Regiment were thinned, help was sent down from the 20th which was posted on the larger hill. Dawn of the morning on the 27th November saw the English troops holding an isolated position. Eighteen thousand men, of whom nearly one-quarter were Arabs, were drawn up against them, with thirty-six guns, all brought into position during

the past night. The total force of the British at the commencement of the action had been 1800. At 5 o'clock in the morning the few remaining men of the 24th, being utterly exhausted, were withdrawn, their place being taken by the Resident's escort, with orders to confine their defence to the summit of the smaller hill, which had by this time been somewhat strengthened by a breastwork of bags of grain. Thus they continued to fight till 9 o'clock when the Arabs again charged home. Just as they gained the crest, the accidental explosion of a tumbrel caused some confusion among the defenders. The sepoys were overpowered, the lesser hill lost, and the gun, which fell into the enemy's hands, was turned against the greater hill. The brigade had now lost much of their superiority in position; from the nearness of the enemy and the fire of the gun on the lost hill, officers and men began to drop fast. The enemy's cavalry and infantry began to close in from every side and to prepare for a general assault. To add to the perplexity of the moment, the Arabs broke into the huts of our troops, and the shrieks of their wives and children reached the ears of the sepoys, while a body of horse entered the residency compound where the ladies had been placed in a separate house. The three troops of Bengal Cavalry, together with the Madras horsemen of the Resident's escort, had been kept all this while in the enclosures round the Residency. Their commander, Captain Fitzgerald,[1] now formed his men outside the enclosures, and charged the principal body of the enemy's horse.

1 According to Grant Duff's version of the story, Captain Fitzgerald had repeatedly applied for permission to charge, and was as often prevented by orders from the Commanding Officer; but seeing the impending destruction, he made a last attempt to obtain leave. Colonel Scott's reply was, 'Tell him to charge at his peril'; (or 'at the hazard of his commission'). 'If it is only at the hazard of my commission, here goes,' said the gallant Fitzgerald on receiving this answer and immediately gave the word to advance but the accuracy of this is doubtful.

The Marāthās did not long resist the onset of this little band, but breaking in all directions, abandoned a small battery by which they had been supported. Captain Fitzgerald pursued them for some distance and then re-forming, charged the battery, took some of the guns, and brought them into the Residency in triumph. The success had been witnessed by all the infantry on the hill; and the men, before drooping from the fatigue of fifteen hours' fighting, became once more animated. A combined attack of cavalry and infantry on the Arabs was being arranged when another tumbrel on the lesser hill blew up, causing great confusion amongst the enemy. The advantage was seized, and the little hill was in a few moments again in possession of our troops, who pursued the enemy through the Arab village, and spiked two guns beyond it before they returned to their posts. Again the Arabs were rallied, and fresh troops brought up. Just as they were ready to advance against the hill, a well-timed charge around the base of it, by a single troop of cavalry under Cornet Smith, took them in the flank, and finally scattered them. The troops from the hill now made a general advance and cleared the ground all about. By noon the enemy's artillery was carried away, and the battle was over. The British lost 367 killed and wounded, including sixteen British officers. Amongst the killed were Mr. Sotheby of the Civil Service, who had been in attendance on the Resident throughout the engagement, Captain Sadler and Lieutenant Grant of the 24th Regiment, Lieutenant Clarke of the 20th Regiment and Doctor Nevam of the Escort.

Fighting at Nāgpur.

44. After this humiliating defeat, the Rājā hastened to disavow any connection with the attack, and to express his regret for what had occurred. His troops and guns were withdrawn from the Sītābaldi side of the city. During the following days various detachments of troops came to the assistance of the Resident, until the Nāgpur force included two regiments of native cavalry, Madras artillery and engineers,

about five battalions of native infantry and eight companies of the 1st Royals.[1]

The Regent on the 15th December demanded the unconditional surrender of the Rājā, and the disbandment of his troops. Till four o'clock on the following morning was given for consideration. On the same afternoon all the stores, baggage, and women were sent to the Sītābaldī hill under guard of the troops who had previously so gallantly defended that position. At dawn on the morning of the 16th the English troops took position, having their left on the Nāg Nadī, with the cavalry on their right on the open ground towards Anjnī. At nine o'clock Appā Sāhib surrendered, but when the British advanced to take possession of the guns, a cannonade was opened upon them. The line was in consequence immediately formed and the guns were stormed and taken, with 144 casualties on the British side. The action took place over the ground lying between the present jail buildings and the Sakardarā gardens, where the Marāthā guns were placed. The Marāthās were completely routed and lost their whole camp with forty elephants and 63 guns. The Marāthā chiefs who had not surrendered, being deprived of Appa Sāhib's authority, lost all control over their scattered forces which now dispersed about the country. One of his principal officers went off to Sholāpur and joined Bāji Rao Peshwā. Another with the Arabs retired into the fort and city of Nāgpur which still held out.

An attempt was made on the 24th December to obtain possession of the city by storming the Jumā Darwāza[2]. This was not strongly fortified, but was defended by the Arabs posted with matchlocks in small bodies in the houses on each side of it. The gateway was breached by artillery, and on the morning of the 24th, during heavy rain, a small storming party attempted to enter it. The breach was

[1] Subsequently the 2nd Battalion, Royal Scots (The Lothian Regiment).

[2] Gateway.

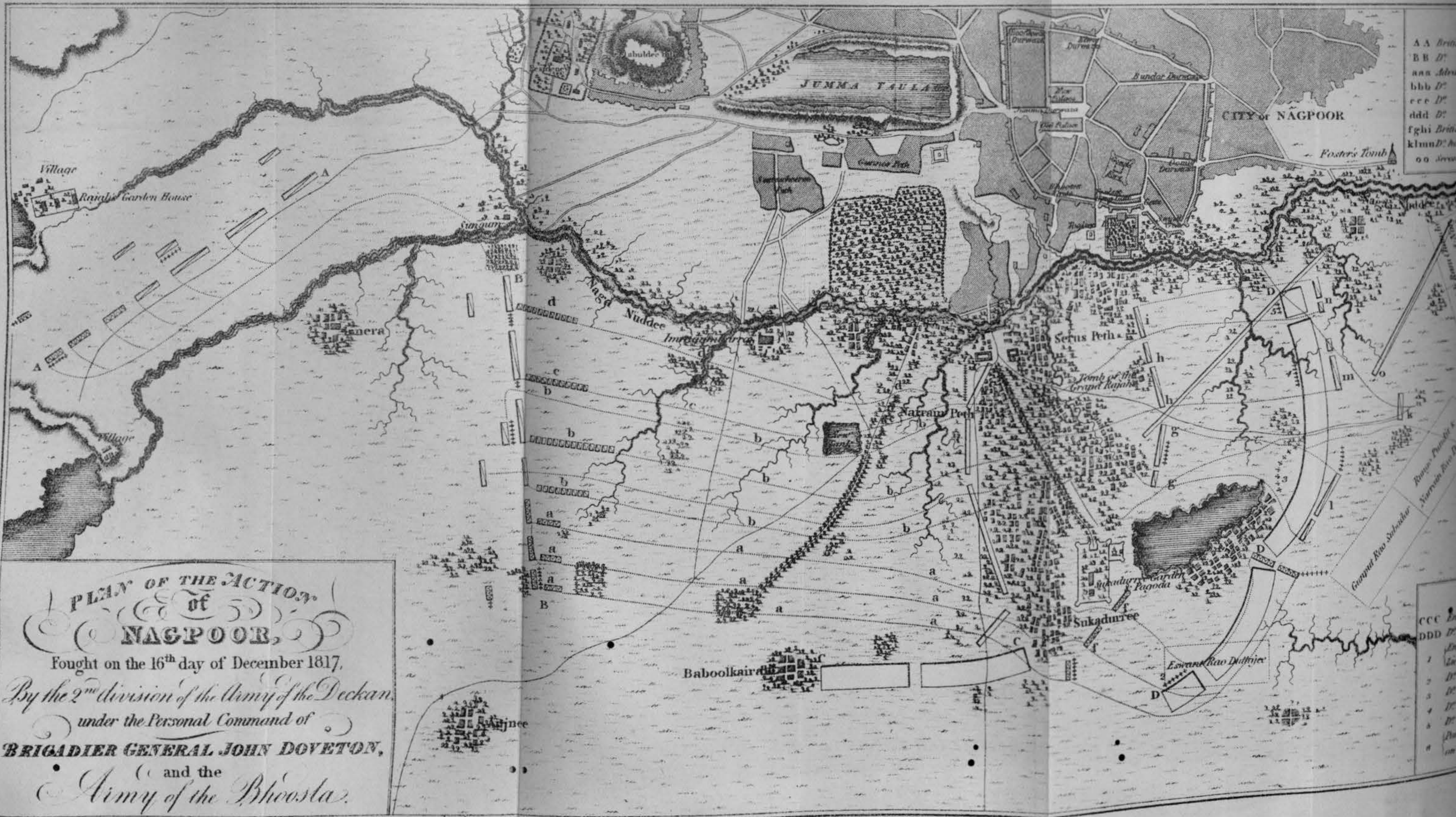


Photo.-Mechl. and Litho. Dept., Thomason College, Roorkee.

Reproduced from Colonel Blacker's Maps and Plans illustrating the Maratha and Pindari campaigns.

gained, but the severe fire of the Arabs prevented the party from advancing and they were eventually compelled to retire. Simultaneous attacks were made on the Tulsī Bāg and other positions and the former was carried, but the failure to effect a lodgment in the breach rendered it useless to continue the action at other points and eventually the whole of the troops retired with 307 casualties. Lieutenant Bell of the Royal Scots was killed in the breach and two other officers were wounded. General Doveton who was in command of the Forces, desired to await the arrival of a siege train to effect the complete reduction of the city, but on the Arabs agreeing to march out with their property, families and arms, Mr. Jenkins allowed them to do so as the immediate acquisition of the city was important.

Deposition of Appa Sāhib.

45. On the 6th January an engagement was drawn up reinstating Appa Sāhib until the pleasure of the Governor-General was known on his agreeing to cede his territories in the Nerbudda valley, and his rights in Berār, Gāwīlgarh, Surgujā and Jashpur, to conduct his affairs according to the advice of the Resident, to give up such forts as might be demanded and to allow of the erection of military works on Sītābaldī. The Governor-General disapproved of the restoration of Appa Sāhib to power but decided that the treaty must be confirmed.

The division of General Doveton proceeded westward to help in taking the forts in the territory ceded by Holkar, and in the pursuit of the Peshwā. No sooner had General Doveton's troops left Nāgpur than Appa Sāhib renewed his intrigues, raised the Gonds, and sent secret instructions to the Killedārs or castellans not to surrender the forts, which they were holding, to the English; and finally he applied for assistance to Bāji Rao. Even within a day's march of the capital the wild Gonds were burning Makardhokrā, Amgaon, and other villages belonging to Bakā Bai, the Dowager Queen, the Rājā's political opponent. He sent

messages for help to the Peshwā and arranged for his own escape to Chānda. At this time also his participation in the murder of his cousin had become known. Sir R. Jenkins now arrested the Rājā, and it was determined that he should be confined for life in Hindustān. He was sent under escort towards Allahābād, but on the road he managed to corrupt his guard, and escaped in the dress of a sepoy. He fled to the Mahādeo hills, where he was joined by Chītu, the last of the Pindāri leaders. He ultimately escaped, first to Asīrgarh and then to Upper India, and died in Rājputāna in 1860.

Raghujī III.

46. On the final deposition of Appa Sāhib a maternal grandchild of Raghuji II was adopted by the widows of his grandfather. He took the name of Bhonsla, and was recognised as Rājā Raghujī III, on the same terms as were granted to Appa Sāhib in 1816. A Regency was established, at the head of which was the Bakā Bai, widow of the second Raghujī. She had the care of the young Rājā's person but the Resident superintended and administered every department of the State through officers appointed by himself. In the year 1830, during the Residentship of the Honorable R. Cavendish, and four years alter the departure of Sir R. Jenkins from the scene of his labours, the Rājā was permitted to assume the actual government. The time of the Rājā's minority, when the country was administered by British Officers under the Resident, was long remembered with favour by the people. Nothing occurred to disturb the peace at large during the next seventeen years; the country was quiet and prosperous; and the security, afforded by a firm and just rule, was a great stimulus to banking and trade. In the year 1848 an impostor named Rāghobhārti Gosain, pretending to be Appa Sāhib, raised an insurrection in Berār, but the disturbance did not extend to Nāgpur. Raghuji III died in December 1853 without a child, begotten or adopted. The Marquis of Dalhousie, then Governor-

General, declared that the State of Nāgpur had lapsed to the Paramount Power. This order was confirmed by the Court of Directors of the late East India Company and by the Crown, and Nāgpur became a British Province.

Occurrences during the Mutiny.

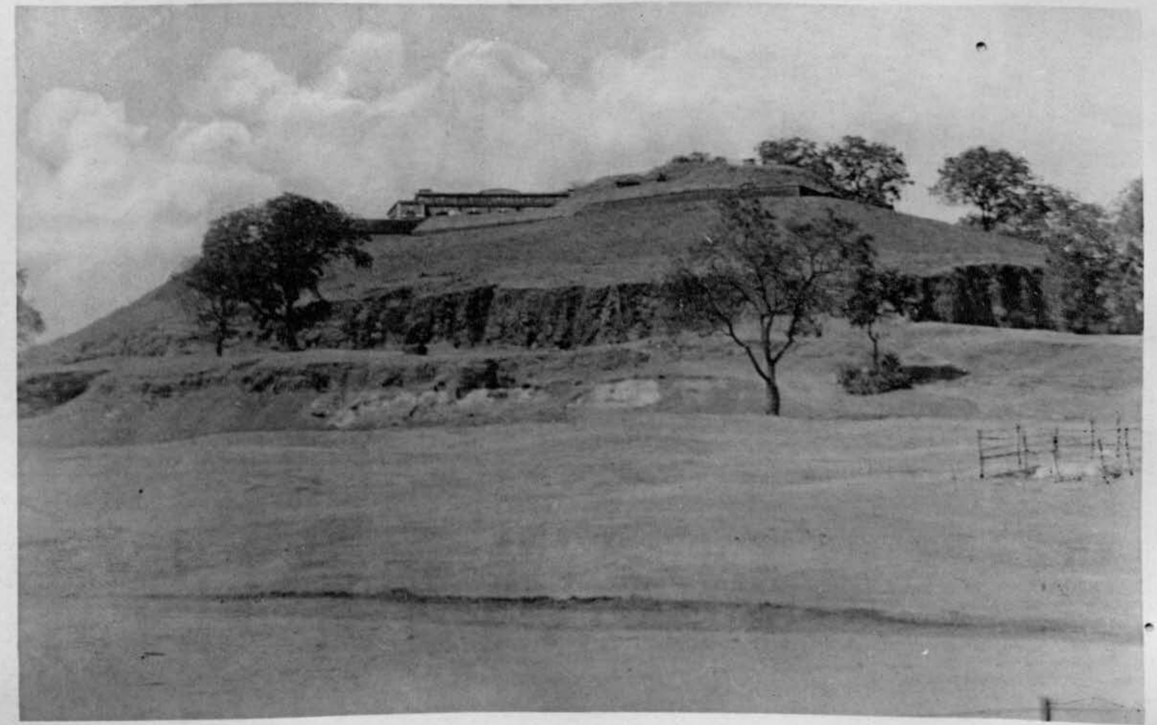
47. From 1853 to 1861 the Dominions of the Bhonslas were administered by a number of officers, at whose head was the Commissioner of the 'Nāgpur Province.' The even course of affairs in that period was broken only by the local events connected with the Mutiny. It is not believed that Nāgpur had any communication with the disaffected centres of the Bengal army before the outbreak, but with the first intelligence of the disturbances unrest appeared in the city. The *chapātis* had indeed been circulated, but here, as in other parts of India, their import was certainly not understood by the bulk of the people, amongst whom they failed to attract any particular attention. There was noticed, however, about the end of April, on the part of some of the leading Muhammadans of the city, an unwonted opposition to the orders of Government on the subject of extra-mural sepulture. This opposition was met by decisive action; intra-mural sepulture was prohibited, and the order was obeyed, but not without covert hints that the time for issue of orders by any British Government was not far from its close. The behaviour of the Muhammadans was from this time carefully watched. In May 1857 Mr. Plowden was Commissioner, and Mr. Ellis,[1] Deputy Commissioner, of Nāgpur. The troops stationed at Nāgpur belonged to the Nāgpur irregular force, and consisted of a regiment of irregular cavalry, largely recruited from the local Muhammadans, a battery of artillery, and a regiment of Hindustāni infantry. Kamptee was garrisoned by two regiments of infantry and one of cavalry of the Madras army and two European batteries.

[1] Mr. R. S. Ellis, C.B., afterwards Chief Secretary to the Government of Madras.

Attempted rising.

48. Intelligence of the calamities at Meerut and Delhi arrived at Nāgpur before the end of May; and it seems that immediately after this a scheme for a rising was concocted in the lines of the regular cavalry, in conjunction with the Muhammadans of the city. Secret nightly meetings in the city had been discovered by Mr. Ellis; and the Scotch Church Missionaries, who had schools and some influence in the city, had given warning that the public mind was much disturbed. The rising was fixed for the night of the 13th of June, when the ascent of a fire-balloon from the city was to have given the signal to the cavalry. But a few hours before the appointed time one squadron of the cavalry received orders to march for Seonī. This disconcerted the plans of the conspirators and a daffadār[1] was deputed to rouse the infantry. He was at once seized and confined by the first man he addressed, and Mr. Ellis and Mr. Ross, Assistant Commissioner, being informed by the Jail Sub-Inspector of certain suspicious movements in the cavalry lines, repaired to the house of Captain Wood, the Second Officer of the regiment. At Captain Wood's house it was discovered that the regiment were saddling their horses. It was now past ten o'clock at night, and by this time the alarm was general. Mr. Ellis sent the ladies of the station for safety to Kamptee, and troops were summoned from that place. Meantime the arsenal had been cared for by Major Bell, Commissary of Ordnance. Loaded cannons were brought up to command the entrance and approaches, while a small detachment of Madras sepoys proceeded to the Sītābaldī hill, and got all the guns in position. The behaviour of these last was such as to remove any anxiety as to the Madras troops having been tampered with. But at this juncture, until the arrival of troops from Kamptee, everything depended on the temper of the irregular infantry and artillery. The officer commanding the infantry was

[1] Subordinate native officer corresponding to corporal.



Bemrose, Collo., Derby.

SITABALDI HILL AND FORT.

prostrate from wounds received from a tiger; the only other officer of the regiment was away from the station. Accordingly Lieutenant Cumberlege, the Commissioner's Personal Assistant, who had previously been with this regiment, proceeded to their lines, and took temporary command. He found that their regiment had fallen in of their own accord on their parade ground, most ready and willing to execute any orders. The battery of artillery, commanded by Captain Playfair, evinced a spirit equally good. Having made sure of these portions of the troops, Mr. Ellis now went down to the city. Everything was found perfectly tranquil. The conspirators must have become aware that the authorities were on the alert, that their co-operators in the cavalry had failed to get the infantry to join, and were now hesitating. The fire-balloon was never sent up. The cavalry, when they heard of the fate of their emissary, seem to have lost all heart. They unsaddled their horses and remained quiet. Subsequently they were turned out on foot without their arms, the infantry and the artillery being drawn up in position fronting and flanking them. It was in vain that efforts were made to induce them to name the ring-leaders, or those who had been saddling their horses. The daffadār who had been seized in the infantry lines was tried by court-martial on the next day, and condemned to death. The behaviour of the native officers of the cavalry had been carefully watched, and within a few days evidence was obtained through a loyal Muhammadan gentleman, Tafazzul Husain Khān, by which five of them were convicted of disloyalty. They were hanged from the ramparts of the fort overlooking the city, and with them two leading Muhammadans of Nāgpur. The treasure was removed to Sītābaldī fort, and a supply of provisions for three months was thrown into the fort and the arsenal at its foot. The cavalry were disarmed and till the 30th November the men were kept under surveillance in their own lines. They were

then again armed and moved towards Sambalpur where they performed their duties well. There were no other disturbances in Nāgpur and for the manner in which the temporary crisis was met and overcome great credit was due to the Deputy Commissioner, Mr. Ellis. The aged Bhonsla princess, Bakā Bai, exerted all her influence on the side of the British and did her utmost by her example to keep the Marāthā Districts loyal. The successful issue of the event at Nāgpur was of the utmost importance to Southern India. As a leading Marāthā State which had been recently annexed, its defection would have served as a beacon of revolt to the Southern Marāthā country and to the turbulent subjects in the north of the Nizām's dominions. Towards the close of 1858, Tantia Topi crossed the Nerbudda on a projected raid into the Marāthā Districts and some apprehension was felt lest the arrival of the representative of the Peshwā might induce the Marāthās to rise in revolt. Columns were sent out to the bank of the Wardhā and into the Chhindwāra District, and the effect of these dispositions was that Tantia Topi, who had penetrated as far as and burnt Multai, was turned off in an easterly direction, when he was met and defeated by a column from Amraoti and again driven northwards.

Formation of the Central Provinces.

49. After the Mutiny the detached position of the Nāgpur Districts and the Saugor and Nerbudda Territories, too remote from the headquarters of any Local Government to be efficiently administered, led to the determination to form a new Province, which was carried into effect in 1861. With the addition of Berār in 1903 the Central Provinces are not far from representing the Bhonsla kingdom at its greatest extent. It includes Saugor, Damoh and Jubbulpore, the greater part of which did not belong to the Bhonslas, and is without Sambalpur and Cuttack, which were included in their possessions. A list of the Chief Commissioners of the Central Provinces is annexed.

List of Chief Commissioners who have administered the Provinces since their constitution :—

No.	Name.	Date of assuming charge of office.
1	Col. E. K. Elliot	11-12-61
2	Lt.-Col. J. K. Spence, Offg.	27-2-62
3	Mr. Richard Temple, Offg.	25-4-62
	Col. E. K. Elliot	18-12-63
4	Mr. J. S. Campbell, Offg.	12-3-64
	Mr. Richard Temple	17-3-64
	Mr. J. S. Campbell, Offg.	24-4-65
	Mr. Richard Temple	6-11-65
5	Mr. J. H. Morris, C. S. I., Offg.	4-6-67
6	Mr. G. Campbell	27-11-67
	Mr. J. H. Morris, C. S. I., Offg. ...	16-4-68
	Confirmed ...	27-5-70
7	Col. R. H. Keatinge, V. C., C.S.I., Offg.	8-7-70
	Mr. J. H. Morris, C. S. I.	6-7-72
8	Mr. C. Grant, Offg.	11-4-78
	Mr. J. H. Morris, C. S. I.	15-11-79
9	Mr. W. B. Jones, C. S. I.	30-4-83
10	Mr. C. H. T. Crosthwaite, Offg. ...	1-4-84
	Confirmed ...	27-1-85
11	Mr. D. Fitzpatrick	15-12-85
12	Mr. J. W. Neill, Offg.	19-2-87
13	Mr. A. Mackenzie, C. S. I.	24-5-87
14	Mr. R. J. Crosthwaite	22-7-89
	Mr. J. W. Neill, Offg.	18-11-90
15	Mr. A. P. MacDonnell, C. S. I.	28-1-91
16	Mr. J. Woodburn, C.S.I., Offg.	26-5-93
	Confirmed ...	1-12-93
17	Sir C. J. Lyall, K. C. S. I., C. I. E. ...	21-12-95
18	The Hon. Mr. D. C. J. Ibbetson, C.S.I.	14-7-98
19	The Hon. Sir A. H. L. Fraser, K.C.S.I., Offg.	28-11-99
	Confirmed ...	6-3-02

No.	Name.	Date of assuming charge of office.
20	The Hon. Mr. J. P. Hewett, C. S. I., C. I. E., Offg.	16-9-02
	Confirmed ...	2-11-03
21	The Hon. Sir F. S. P. Lely, C. S. I., K. C. I. E., Offg....	18-3-04
	Confirmed ...	23-12-04
22	The Hon. Mr. J. O. Miller, C. S. I. ...	4-5-05
23	The Hon. Mr. S. Ismay, C. S. I., Offg. ...	27-7-06 to 21-10-06
24	The Hon. Mr. J. O. Miller, C. S. I. ...	22-10-06 to 4-3-07
25	The Hon. Mr. F. A. T. Phillips, I. C. S....	5-3-07 *S. p. t.* to 24-3-07
26	The Hon. Mr. R. H. Craddock, C. S. I....	25-3-07

ARCHÆOLOGY.

Archæology.

50. The oldest remains in the District are the circles of stones which are found in a number of villages.[1] In many cases the stones are so small and the appearance of the circles so insignificant as not to attract attention unless specially looked for; and though the circles have been recorded to exist in all the villages mentioned in the footnote, some of them may now have been removed or broken up. Ashes, chips of pottery, iron vessels and tools have been found beneath the stones and they are supposed by the people to be the encampments of a race of nomad shepherds. It is supposed that these may have been a branch of the Scythian tribes who overran India in the fourth and fifth centuries. The most important architectural monuments

[1] Borgaon, Khāpri, Ubjī, Digras, Sāwargaon, Junāpāni, Ghorār, Kohlī, Nildhoa, Tākalghāt, Wāthorā.



Bemrose, Collo., Derby.

ARCHÆOLOGICAL REMAINS, NAGPUR MUSEUM.

are the temples of Rāmtek, which are described in the Appendix. There are a number of these, the most important being the shrines of Rāma and Lakshman on the crest of the hill; the latter contains an inscription of the 14th century. The whole area within a radius of ten miles of Rāmtek is held to be holy and there are Asht Tirtha or eight sacred places, which are all visited by devout pilgrims. Among these are Chakordā, Mansar and Nagardhan, whose tanks are sacred. The District has a number of old temples, the principal being at Adāsa, Ambhorā, Bhuigaon, Dhāpewāra, Jākhāpur, Kurādi, Kātol, Kelod, Pārseonī, Saoner and Umrer. The temple at Pārseonī belongs to the Jains.

There are few traces of Buddhist buildings, but the mound at Mansar not improbably consists of the remains of a monastery. Several villages contain the ruins of old forts, those at Nagardhan, Bhiwāpur, Dongartāl, Kātol, Pātansaongī and Umrer being the most important. In the Nāgpur museum is a collection of sculptures obtained from several Districts including inscriptions engraved on stone slabs and copper plates. Among them is the Sītābaldī Sanskrit inscription of the 11th century recording the fact that Nāgpur was then held by Ponwār Rājās, and some Muhammadan tombstones with Persian inscriptions removed from Sītābaldī fort. Near the flagstaff in the grounds of Government House lie two guns which have been brought here from Asīrgarh. The bronze gun is elaborately ornamented in relief with Persian inscriptions and scroll-work commencing at the muzzle. The inscriptions are, as follows :—

> 'When the sparks of sorrow issue from me life deserts the body as grief falls on the world when flames issue from the fiery zone'.

Aurangzeb's seal with his full title.

> 'Abul Muzaffar Mohī-ud-Dīn Muhammad Aurangzeb Shāh Ghāzi'.

'Made at Burhānpur in the year 1074 A.H.' (A.D. 1663).
'The gun Haibat-i-Mulk' (Terror of the country).
'In the rule of Muhammad Husain Arab'.
'A ball of 35 seers and 12 seers of powder Shāh Jahāni weight'.

The iron gun is named Kaduā Padmā (The Bitter Lotus) and has a Hindī inscription, giving the date when it was repaired (A.D. 1654). The Lakshman temple of Rāmtek and the temples of Kelod and Dongartāl also contain inscriptions. The first has been deciphered by Mr. Hira Lāl and is referred to in the History of the District; the meaning of the other two is unknown.



Bemrose, Collo. Derby

CHAPTER III.

POPULATION.

STATISTICS OF POPULATION.

Statistics of area and population, density and distribution.

51. The area and population of the District in 1901 were 3840 square miles and 751,844 persons. Nāgpur now stands the thirteenth in area and fifth in population among the Districts of the Central Provinces and Berār. It is divided into four tahsils, Nāgpur lying in the centre, Kātol to the north-west, Rāmtek to the north-east, and Umrer to the south-east. The figures of area and population of the four tahsīls in 1901 are shown below:—

	Area in square miles.	Population.
Nāgpur	871	296,117
Rāmtek	1129	156,663
Umrer	1040	136,476
Kātol	800	162,588

Rāmtek tahsīl is the largest in area and Nāgpur in population, while Kātol has the smallest area and Umrer the smallest population. The total density of population is 196 persons per square mile as against 120 for the Central Provinces and Berār, this being the highest figure of density in the combined Province. The rural density is 135 persons per square mile or somewhat higher than the average. Nāgpur tahsīl has naturally the highest total density with 340 persons to the square mile, but the rural area of Kātol is the most thickly populated with 170 persons, while Umrer has only 116. This last figure is due partly to the decline of population in Umrer between 1891 and 1901. The Kātol Station-house area contains 241 persons to the square mile excluding Government forest. As yet however the District is very far from having reached the limit of population, as

though less than 70 per cent. of its residents are directly dependent on agriculture, the cropped area reaches the high figure of 2 acres per head. The District contains 12 towns and nearly 2300 villages, of which 1700 only are inhabited. The large number of uninhabited villages was thus explained by Mr. Rivett-Carnac [1] in Wardhā :—'Villages of this 'description are called *masrās*. They are numerous and are 'sometimes marked by the sites of deserted houses, whose 'inhabitants have forsaken them to take up their quarters 'at some more favoured spot in the vicinity, from which 'they come daily to till the fields of the *masrā*. More 'generally however the uninhabited estates are the depen-'dencies or offshoots of some parent village, the cultivators 'of which, growing too numerous for the village fields, have 'extended the cultivation and broken up land in the vicinity.' Many villages also were deserted during the troublous times at the commencement of the century, and many more were thrown up by court favourites to whom they had been granted and who absconded after the peace of 1818.

Towns and large villages.

52. The following places were classed as towns in 1901, their population being shown in brackets: — Nāgpur (127,734), Kamptee (38,888), Umrer (15,943), Rāmtek (8732), Narkher (7726), Khāpa (7615), Kātol (7313), Saoner (5281), Kalmeshwar (5340), Mohpā (5336), Kelod (5141), and Mowār (4799). Of these towns, all except Kamptee, Kelod, Kātol, Mohpā and Narkher are municipalities, Kamptee being a Cantonment. The urban population in 1901 was 240,388 or 32 per cent. of that of the District, and was the highest in the Province. The increase in urban population since 1891 was 10 per cent., and between 1881 and 1891 it was 7 per cent. The towns of Nāgpur, Umrer, Rāmtek, Kātol, Saoner and Mowār increased in population during the last decade, and the

[1] Wardhā Settlement Report, 1867, para. 87.

other towns showed a decline. In the five years since the census, most of the towns have an excess of deaths over births in the returns of vital statistics and in the case of Nāgpur and Kamptee the decrease according to this test is very substantial. But it has probably been more than counterbalanced by immigration. Besides the towns no less than 26 villages contained 2000 or more persons in 1901, while 38 villages contained between 1000 and 2000 persons. This frequency of large villages is however an old feature of the District and has not arisen within the last few years. According to statements given by Mr. Craddock the population of the large villages had only slightly increased between 1866 and 1891; and he explains their origin as follows :—'The administrative revenue unit 'was the pargana and the Kamaishdār or pargana officer 'drew together a small colony of officials, traders and arti-'sans in the *kasbā* or headquarters of his charge. The Pin-'dāri raids were a further inducement to the patels and 'cultivators of the surrounding country to collect in these '*kasbās* for purposes of protection; and in this way a practice 'sprang up which remains to this day for cultivators to 'live in the *kasbā*, and cultivate land in other villages for 'several miles round. The movements of the population 'for the last thirty years have not been very marked, but 'there has been a tendency for weavers to collect in their 'chief strongholds, for the labouring population to migrate 'to the large towns, and to a small extent for the agricul-'tural population to leave the *kasbā* and settle in the village 'in which their lands are situated. For the cultivator's 'preference for living in a small town, in its origin the 'outcome of necessity, is now a luxury, and as the struggle 'for existence becomes harder, we shall see him more and 'more ready to live near his land.' As a general rule the small towns and large villages which are solely agricultural are declining in importance, but those which are favourably situated for trade or for the establishment of cotton factories

are growing rapidly. Excluding the towns the average size of a village in 1901 was 60 houses and 300 persons.

Growth of population.

53. A census of the District has been taken on five occasions. No important transfers of territory have taken place, and the differences in area at successive enumerations have generally been due to correction of survey. In 1866 the population was 634,000 and decreased slightly to 631,000 in 1872, on account of the emigration of Koshtīs to Berār, and of the scarcity of 1868-69. In this the Umrer tahsīl suffered most. In 1881 the population had risen to 697,000 persons or by 10½ per cent. on that of 1872. Nearly half the increase was attributed to immigration induced by the construction of the railway and the growth of trade. In 1891 the population was 758,000, showing an increase of nearly 9 per cent. on 1881. The largest advance took place in the Umrer and Nāgpur tahsīls, while in Rāmtek and Kātol the increase was only 6¾ per cent. The decennial birth-rate between 1881 and 1891 was 41½ per mille or slightly higher than the Provincial average, while the death-rate was 32 or a little less. In 1901 the population was 752,000, showing a decline of 6000 or nearly 1 per cent. on that of 1891. The results of the census were however very different in the four tahsīls; the population of Kātol increased by 3½ per cent. and that of Nāgpur by about ½ per cent.; Rāmtek showed a very slight loss and Umrer decreased by 8½ per cent. Over the whole District the number of deaths exceeded that of births in every year from 1894-97 inclusive. Cholera was prevalent in all these years and in 1895 an epidemic of small-pox also occurred. Nāgpur was not severely affected by the famine of 1897 and a considerable proportion of the mortality of 50 per mille of population may be assigned to the immigration of starving wanderers from other Districts. In 1900, however, the District suffered severely, the death-rate being more than 57. During the six years from 1901 to 1906 the excess

of births over deaths was 17,000 and the deduced population at the end of 1906 was 769,000. The increase would have been considerably greater but for the mortality from plague.

Migration.

54. In 1901, just over 86½ per cent. of the population were shown as having been born within the District. Of 101,000 residents of Nāgpur born outside the District, the majority came from Bhandāra, Wardhā, Chhindwāra and Chānda. There were about 10,000 immigrants from the United Provinces and nearly 10,000 from Berār. Natives of Upper India are known locally as Pardeshis and a considerable number of them are employed in the factories and railway workshops. There is a fairly large emigration from Nāgpur to Wardhā and Berār, but these movements are, Mr. Craddock thinks, largely of a temporary nature.

Diseases.

55. The following note on diseases prevalent in the District has been furnished by Lieutenant-Colonel Roe, I.M.S., Civil Surgeon. The period from the beginning of April till the end of June is usually the healthiest part of the year. During July and August diarrhœa and dysentery are prevalent and cholera frequently appears at this time; from 3000 to 5000 cases of dysentery are treated annually in the dispensaries. Malarial fever rages from August to December, and for this disease the returns show an average of 50,000 admissions annually. Chronic malaria characterised by anæmia, enlargement of the liver and spleen, and fever of an irregular type is not uncommon throughout the District. In this type of cases the spleen often obtains an enormous size. During the cold months of the year pneumonia and pleurisy are met with. In the case of children worms and diseases of the ear are common affections throughout the year. In Nāgpur itself, tubercular disease has in recent years increased to an alarming extent. In 1901 only 42 cases of this disease were treated, while in 1905 the numbers had reached 621. This is believed to result

from working in the factories and mills, the minute particles of cotton penetrating to the lungs of the factory hands and predisposing them to the disease. Leprosy is slightly on the decline, the last census report giving 409 males and 140 females, or a total of 549 lepers as compared with 773 in 1891. The leper asylum, which has been established since 1901, contains 47 inmates.

56. The District suffers considerably from cholera and severe epidemics in which the number of deaths exceeded 1000 have occurred in 12 out of the last 36 years; the worst outbreak was in 1883, when the mortality was 5000 or 7·2 per mille, while in 1878 and 1900 the number of deaths exceeded 3000. Since 1900, however, there have been no serious visitations. Small-pox has not decreased in Nāgpur to the same extent as in other Districts. Epidemics causing more than 1000 deaths have occurred in seven out of the last 36 years, and four of these have been since 1899. The worst outbreak was in 1889 when nearly 3200 deaths were reported. Vaccination has suffered considerably since the appearance of plague owing to the temporary migrations of the people.

Cholera and small-pox.

57. Plague first appeared in epidemic form in 1899-1900, in which year it caused about 1000 deaths, nearly all of which were in Nāgpur. In 1902-03 a more severe visitation took place and 7500 deaths were reported, of which 6300 were in Nāgpur. This was followed by another bad year in 1903-04, causing nearly 18,000 deaths or 24 per mille of population. Of these, 8000 were in Nāgpur and 3700 in Kamptee. In the next year the disease was practically absent from the large towns, but 1400 deaths occurred in the smaller towns and villages. In 1905-06, there was another severe outbreak and more than 6000 deaths were recorded, of which 4600 were in Nāgpur.

Plague.

The mortality from plague is generally greatest in the first four months of the year, and next to this in the last

four months, while between May and August it is very small. As it commonly appears in August or September, the infection spreads gradually and the mortality rises three or four months later. It has been found that when the mean temperature goes above 80° to 85,° plague practically ceases. In 1906-07 a vigorous campaign for the slaughter of rats was inaugurated by the Deputy Commissioner, Mr. Dewar, and the Civil Surgeon, Major Buchanan. About 100,000 rats were killed, and the results appeared to show that substantial results were achieved in preventing the spread of the disease. Between August 1906 and March 1907, less than 8000 deaths occurred, though the disease appeared in most of the towns and large villages. And, moreover, the highest mortality was in September and October, and the epidemic declined in November and December instead of following the normal course of increase in virulence.

Occupation[1].

58. In 1901, a proportion of 58 per cent. of the total population were supported by pasture and agriculture as against the provincial figure of 72½. Landowners numbered 32,000 or 4 per cent. of the population, tenants 190,000 or 25 per cent. and labourers 194,000 or 26 per cent. Another 23,000 persons or 3 per cent. of the total are returned as being supported by earth-work and general labour. About 25,000 persons or 3¼ per cent. are supported by personal, household and sanitary services. These are principally barbers, cooks, indoor servants and washermen. The number of door-keepers or *chaukīdārs* is the highest in the Province. Water-carriers, however, are less numerous than in the northern Districts, as a separate servant is not usually employed for this purpose. About 43,000 persons or nearly 6 per cent. of the population deal in food, drink and stimulants, the most numerous classes being fishermen and fish-dealers,, and oil-pressers and sellers. Vegetable oil is more

[1]In the statistics given in this paragraph, persons dependent on each occupation are included.

commonly used for food in the southern Districts than in the north. Occupations returned under textile fabrics and dress support 86,000 persons or 11 per cent. of the population, this proportion being the highest in the Province. Of these, 13,000 are engaged in the silk trade and 62,000 in the cotton trade including 9000 workers in factories with their dependents. In 1901 the mining industry was insignificant, but the latest returns show 2345 persons engaged in this calling. No less than 10,000 persons or nearly 1½ per cent. of the population are shown as supported by banking and money-lending, while of 14,000 persons engaged in transport and storage, nearly 4000 belonged to the railways. Nearly 8000 persons were maintained by Government service, excluding the forest, medical and public works departments. Of these 5000 were in menial service. About 4500 persons were supported by music, acting or dancing and nearly 12,000 or more than 1½ per cent. of the total were beggars. Nearly 4000 persons were engaged in religious services. About 3000 were pensioners, this being much the highest number in the Province, and 962, including dependents, were medical practitioners without diploma.

Language.

59. The principal language of the District is Marāthī, which is spoken by just over three-fourths of the population. The form of the language known as the Nāgpurī dialect[1] is in general use; it differs in a number of points from the pure Marāthī of Poona, but resembles in all essential points the dialect of Berār, which was formerly distinguished from it under the name of Berāri. The Koshtis have a jargon of their own, differing slightly from ordinary Nāgpurī. Hindī is returned by 70,000 persons or 9 per cent. of the population. The Bundelī dialect of Western Hindī is the basis of the Nāgpur form of the language, but as used in the town of Nāgpur it is a regular jargon, grammar and idioms being mixed up with other forms of Hindī and with Marāthī

[1] From Dr. Grierson's Linguistic Survey of India, Vol. VII.

in indescribable confusion. The number of Urdū or Hindustāni speakers is 38,000, being the highest in the Province. The bulk of the Muhammadans return themselves as speaking Urdū. Gondī is returned by 41,000 persons or 5 per cent. of the population; nearly all the Gonds are still shown as speaking their tribal language. Owing to the large mixed character of the population of Nāgpur, languages of other Provinces or of foreign countries are returned in more strength than in other Districts. There are 9000 speakers of Telugu, 3600 of Tamil, 3000 of Mārwāri, 1500 of Gujarāti and nearly 3000 of English; and other tongues recorded in the census tables are Bengāli, Punjābi, Afghāni, Burmese, Persian, French and Portuguese.

RELIGION.

Statistics of religion.

60. The statistics of religion show that Hindus constitute 88 per cent. of the population, Muhammadans 5 per cent. and Animists 5 per cent. In 1901 there were 2675 Jains, 481 Zoroastrians and 6163 Christians.

Popular religion.

61. The antagonism between Vaishnavism and Shaivism is more apparent here than in other Districts of the Province. Even small children having sectarian marks on the forehead are commonly seen in the streets. The reason seems to be that the District contains many immigrants from Southern India, where a Shaiva will neither dine nor intermarry with a Vaishnava. The men now show some tendency to modify the acerbity of these religious prejudices, but the women still zealously uphold and practise them.

Village gods.

62. Among the village deities the most popular is Hanumān, or, as he is locally termed, Māroti. His image of a monkey coloured with vermilion with a club in one hand and a mountain in the other is placed on the boundary of villages, and is known as *Vīr mūrti* (the image of strength). His representation in another form with folded

hands is known as *Dās mūrti* (slave image) and is placed in subordinate hamlets. Mahādeo or Siva is generally revered in this District in his incarnation as the warrior Khandobā attended by a dog. Khandobā guards the country as Bhairava guards the village, and is shown as a horseman with a sword in his right hand and his wife sitting beside him. He is the patron deity of the Marāthā caste, who worship him every Sunday, placing rice and flowers before him. The dog is held as sacred by the Marāthās who will not injure it.

The goddess Kāli, the wife of Siva, is worshipped in the local incarnation of Mātā Māi, the deity representing the dreaded disease of small-pox. She is represented by a stone daubed with vermilion and on each side of her are *trisūls* (tridents) surmounted by flags. To the trident is attached an iron chain, which is known as the *chābuk* or whip of the goddess. People possessed with evil spirits are beaten with this chain, so that the spirits may be driven out of them. If a patient is severely attacked by small-pox, a vow is made to offer the *sigdi* worship. The *sigdī* is an earthen vessel filled with burning charcoal and is placed on the head of a married woman, whose hands are tied in front of her as she goes in procession to the shrine, accompanied by other married women bearing brass pots of water on their heads. The way before them is swept with branches of the *nīm* tree (*Melia indica*), which is sacred to the goddess. When the patient has recovered he also walks in the procession. On arrival at the shrine music is played and the neighbours all come and put a little grain in the lap of the woman who has carried the *sigdī*. Offerings are made to the goddess and a sacrificial goat is led before the image and bathed. If it shakes its body when water is poured over it, it is considered that the goddess has accepted the offering. A similar test was used by the ancient Greeks and Romans. A clay horse is also offered, perhaps in substitution for the former sacrifice of a real one. Narain Deo or

the sun-god is worshipped by Mahārs, Dhīmars and Māngs. Two young pigs are castrated and fed profusely till they are three years old. When the offering is to be made, the Mahārs, Dhīmars, Gonds, Gowāris, Chamārs and Māngs are invited to the feast and all sit together. They wash their hands and feet with water taken from the same pot, and after the pig has been sacrificed to Narain Deo, consume it in company. As soon as the cock crows in the morning the feast is stopped, and caste distinctions are resumed.

Muhammadans.

63. Muhammadans number nearly 43,000 persons. They include about 2000 Shiās and the remainder are Sunnis. The Sunnis support an Anjuman Islāmia or private school where their children are taught up to the middle school standard and also instructed in their religion. About 27,000 of the Muhammadans live in Nāgpur and Kamptee. The Muhammadans have come from all directions, some from the Delhi country, some from Berār and the west, but probably the greatest number from the Nizām's dominions in the south. Only a very few families date their first settlement in the District as far back as the commencement of the 18th century and the bulk of them came during and after the Marāthā occupation. Many of them are descendants of officers in the Bhonsla and English Armies, and some, Mr. Craddock remarks, of illegitimate children of the Rājās and Marāthā nobility, who have no doubt turned Muhammadans to improve their social position. The leading families are those of the Gond Rājā Azam Shāh and of Hakim Saiyad Bunyād Husain. The high-class Muhammadans, Mr. Craddock remarks, have notions about their former distinction which effectually bar the way to present prosperity. Like the Marāthās many of them have lost their ancestral property or are struggling to keep up appearances on an attenuated pension. But those less hampered by past dignity have been more successful, some

taking to trade and others acquiring landed property and managing it well. Many Muhammadans are employed in the police and in the subordinate ranks of Government service. As clerks, they cannot compete with the Hindus, but in executive posts they more than hold their own. The Muhammadans are backward in education and easily spoilt by prosperity. They contribute quite their fair share to the criminal classes. But as a class they are more united than the Hindus, and the efforts of the better educated to improve the condition of their community extend to the very poorest. The followers of this religion include a class of artisans, principally Momins or weavers and Pinjārās or cotton-cleaners. The Momins belong chiefly to Kamptee and weave coarse cloth. They are poor and ignorant. The Pinjārās have generally found their occupation gone with the establishment of ginning factories, and have taken to cultivation and petty trade. Many of this class are converts from Hinduism, and the respectable Muhammadans do not intermarry with them. The rural Muhammadan, Mr. Craddock says, is more than three parts a Hindu.

The Mehdibāg Institution.

64. A notice may here be given of the Atbā-e-Malak community, which is located at Mehdibāg and is commonly known as the Mehdibāg Institution. Its members are Daudi Bohrās of the Shiā sect, and are distinguished by the long white robes which they always wear. The sect was founded in 1891 by a young Bohrā of Bombay and its present head, Mr. H. M. Malak, was selected by him as his successor. The members live together in the buildings of the institution in the Mehdibāg suburb of Nāgpur, where their children are also brought up and educated. Their property is held jointly and the management is entrusted to their priest and leader. The community is to some extent esoteric and its writings are not made public, but general religious teaching is its principal tenet, and the members assemble daily for a considerable time to hear

their faith expounded and receive instruction in it from Mr. Malak. Women are educated and taught suitable accomplishments. Except in the above points they do not seem to differ from ordinary Shiās. Commercially the institution is quite successful. It owns a well-known shop for hardware and fancy goods in the town, and the village of Umrer and its assets amount to more than a lakh.

Jains and Pārsīs.

65. The number of Jains has decreased from 3141 in 1891 to 2675 in 1901. The Jains are nearly all Mārwāri Baniās and are engaged in trade and banking. But a few Kalārs also return this religion. The former hostility between Jains and Hindus has nearly vanished, but they do not intermarry in the Central Provinces, though they may take food together. The leading characteristic of the Jain religion is the extraordinary tenderness for animal life, in which respect it surpasses all others. Like other Baniās the Jains do not as a rule give their children an English education, and among the higher classes of the native community they are the most orthodox, and are practically unaffected by the modern tendency to the abolition of caste restrictions.

The Pārsīs have increased from 376 to 481 during the last decade. They are enterprising traders, and the bulk of them are employed in the mills and factories. The Pārsīs have adopted English education and habits with avidity, and this gives them an advantage over the Baniās, as they will engage in any kind of business that comes to hand, such as shop-keeping, liquor-contracts and the timber trade, to which the Mārwāris are unable to adapt themselves. At present the Pārsīs base their manner of life very largely on that of the English. Their women are the best educated in India after Europeans and Eurasians, are in no way secluded, and do not marry as a rule till after they are sixteen. But this is quite a modern development and may be attributed to the intelligent appreciation of English habits. Fifty years ago they would not eat food

touched by one not of their own religion, their women were secluded and not allowed to appear in public, and neither men nor women would wear English boots or shoes. 'The first notable public gathering in which Pārsī 'ladies appeared was witnessed on the occasion of the 'festivities attending the birth of the late Prince Albert 'Victor. An entertainment to the school children of the 'town was given in the esplanade in Bombay, when a 'number of respectable Pārsīs appeared with their wives 'and walked arm-in-arm with them. The sight created 'quite a sensation'.[1] The Pārsīs still offer food to the spirits of the dead.

Christians.

66. Christians numbered 6163 in 1901, of whom 2870 were Europeans and Eurasians and 3293 natives. The number of native Christians had increased by nearly 1000 since 1891. The distinction between Europeans and Eurasians in the census tables is valueless, but since 1901 both classes have certainly increased considerably in numbers. About half the Eurasians are in railway service and the large majority of the remainder in Government service. None are returned as without occupation. Distributed by sect 1460 of the Christians belonged to the Anglican Communion, 876 were Presbyterians and 3600 were Roman Catholics. The high number of Presbyterians was partly due to the presence of a Scotch regiment in Kamptee. Nāgpur is the headquarters of an Anglican diocese which was founded in 1902 and consists of the Nāgpur and Chhattīsgarh Divisions of the Central Provinces. To this, by commission from the Bishop of Calcutta, the Saugor and Nerbudda Divisions of the Central Provinces are added. The Bishop of Nāgpur has also the episcopal oversight of the Berārs, Central India, Rājputāna, and Ajmer-Merwāra. The Bishop, the Archdeacon and a Chaplain are resident at Nāgpur and a Chaplain at Kamptee. The Church of All Saints Nāgpur is the Pro-Ca-

[1] K. N. Kabrāji in Indian Antiquary 1904, page 66.

thedral Church of the diocese. There is also a church at Kamptee, and various funds are raised for the relief of the poor and other objects. Nāgpur is also the headquarters of a Roman Catholic diocese which extends over the Central Provinces and Berār, excluding Saugor, Damoh, the Bastar, Kālāhandī and Patnā States, and the south of Chānda, and takes in the part of the Hyderābād State north of the Godāvari. The Catholic population of the diocese is 12,000.

Christian Missions. Roman Catholic.

67. Missionary work is carried on by the Roman Catholic, Scotch, Anglican, and Methodist churches. The Catholic Mission was started from Savoy in France in 1846, the headquarters being fixed at Kamptee, where the first church and schools were built in 1852. In 1870 the St. Francis de Sales' school was built at Nāgpur and the centre of the mission was transferred there. The diocese was established in 1887. The clergy in the District number 17, of whom 14 are French priests and 3 natives. There are also 30 French nuns of the order of St. Joseph, and 17 Catechist ladies of whom 14 are French and 3 natives of India. The mission support the St. Francis de Sales' College at Nāgpur for European and Eurasian boys affiliated to the University; two Convent High schools for European and Eurasian girls at Nāgpur and Kamptee ; a High school for native boys, and Marāthi, Tamil and Christian schools for girls. It also maintains a poor asylum and foundling home at Nāgpur, and an orphanage for European and Eurasian boys ; an orphanage at Kamptee ; and an agricultural estate and technical school at Thāna in the District. It has six churches for public worship.

United Free Church and other Missions.

68. The mission of the United Free Church of Scotland is named after the Rev. Stephen Hislop, whose name is well known for his geological and ethnographical researches in the country round Nāgpur. It maintains the Hislop College with the assistance of a

grant from Government, and High, middle and primary schools in connection with it ; schools for low-caste native boys at Nāgpur and various places in the interior ; a large orphanage and boarding-house for Christian girls and four girls' schools; and the Mure Memorial Hospital. It also carries on Zanāna mission work from house to house. All treatment at the Mure Hospital is free and it receives no grant from Government; the patients number about 6000 yearly and it is in charge of a qualified European Lady Doctor. The Methodist Episcopal Mission has churches at Nāgpur and Kamptee in charge of European Missionaries, and vernacular boys' schools at Kamptee and Rāmtek. The Central India Mission of the Church of England was established in 1870. It has about 150 native converts and supports a boys' school.

CASTE.

Principal castes.

69. The most numerous castes in the District are the Kunbīs constituting 20 per cent. of the population, and the Mahārs or Mehrās 16 per cent. Brāhmans are the largest proprietors and own 750 villages or a third of the total number, and next to them come Kunbīs with 440. The bulk of the population are of Marāthā extraction, but in the north of the District there is a fair sprinkling of Hindustāni castes, Kirārs, Lodhis and Raghvīs, who have come down from the Sātpurā plateau, and these are the best agriculturists. Gonds are the only forest tribe, constituting 6 per cent. of the population, but many of them have taken to work in the mines, and as coolies and porters in towns, and except in feature are hardly distinguishable from Hindus. The remainder live principally in the tracts adjoining the Sātpurā hills to the north.

Marāthā Brāhmans.

70. The Brāhmans number 23,000 or 3 per cent. of the population. The bulk of them are Marāthā Brāhmans of the Deshasth subcaste, whose home is Poona country above the Western

Ghāts, as distinguished from the Konkanasths who belong to the Bombay Concan or littoral, and the Karhādes from Sātāra and the north. Intermarriage was formerly prohibited among these subcastes, but now occasionally takes place between Deshasths and Konkanasths. The Brāhmans, however, have a further division into sects, according to the Vedas from which the prayers which they recite are taken. The two sects of the Rigvedīs and Yajurvedīs are found in the District and the latter are further subdivided into the Apastambhas or black Yajurvedīs and the Mādhyandin or white Yajurvedīs. Marriage between these sects is prohibited, except that the Rigvedīs sometimes marry with Apastambhas. The Deshasths are generally Rigvedīs. The Rigvedīs must move their heads when they recite the Vedic prayers, while the Yajurvedīs move their hands up and down and from side to side, keeping their heads still. The Rigvedīs pronounce *S* and *kh* as *S*, and the Yajurvedīs pronounce them as *kh*. Many Brāhmans will give this sect division as their subcaste and scarcely know their real subcastes.

Names of Brāhmans.

71. Marāthā Brāhmans generally use three names, their own Christian name, their father's, and their surname. They have also a *gotra* or exogamous group, but the *gotras* are few in number and consequently make very large groups. The *gotra* is named after a *Rishi* or saint of Vedic times, from whom all its members are supposed to be descended.

Marriage is primarily prohibited among members of the same *gotra*, but people having the same family name usually belong to the same *gotra* and therefore cannot intermarry. A Brāhman has also a ceremonial name determined by the constellations he was born under. But these are compounded of syllables representing each constellation or conjunction and the resulting name is often uncouth or incongruous to Hindu ears. The Christian names are usually taken from those of deities, and as each important deity is known

by several synonyms there is plenty of variety. Vishnu is supposed to have a thousand names, being called by a separate one in each important mythological incident in which he took part. The family names fall into several categories. Some are taken from the names of offices as Faujdār (general), Silladār (cavalry leader), Sūbhedār (governor), Farnavīs (accountant), Ratnapārkhi (assayer of jewels), Jāmdār (keeper of the king's wardrobe); others from religious functions as Dīkshit (one who performs the ceremony of initiation), Agnihotri (priest of the Vedic fire-sacrifice[1]); Pāthak (reciter); Joshi (astrologer); Vaidya (physician); Purohit (priest); Upādhye (teacher); Pujāri (worshipper); others are from the names of places or the homes of the family and these usually have the affix *kar* as Indurkar (of Indore), Digraskar (of Digras), Dongre (hill-dweller), Chāndekar (from Chānda), Bhāndakkar (of Bhāndak), Pohankar (of Pohona); while among miscellaneous names are Bāghmāre (tiger-killer); Tāmhan (a small copper dish used for the daily Sandhyā worship); Diwākar and Bhāskar, both meaning the sun; Khond (the bullock's hump); and Bhākre (from *bhākar*, bread).

In the northern Districts a man of another caste meeting a Brāhman will say 'Pai-lāgan' (I bow to your feet), but in Nāgpur he only gives the ordinary salutation of Rām, Rām.

Character of Brāhmans.

72. Mr. Craddock describes the Marāthā Brāhmans as follows:—'As traders, money-'lenders and lawyers, the Brāhmans 'are most successful, but as landlords they fall far below 'the ideal standard. As clerks and officials they are second 'to none, and they almost monopolise the subordinate ap-'pointments in Government service. An outsider in an office 'largely manned by Marāthā Brāhmans stands a very small 'chance of success; every slip he makes is at once brought 'to light; while the faults of members of their own community 'are carefully glossed over. Excellent judges of character

[1]Fire for this sacrifice is obtained by friction of two pieces of wood. The Agnihotris have the upper lip shaved.

'themselves, they are past masters in concealing their own 'thoughts. Their abhorrence of practical and mechanical 'work is also beginning to give way. Brāhmans have become 'thoroughly practical as well as scientific agriculturists, and 'have also taken to engineering and other professions.'

Marāthās.

73. The Marāthās number 11,000 persons and hold 260 villages, of which 143 belong to the Bhonsla family and their relatives. Mr. Craddock remarks of them :—'Among the Marāthās a 'large number represent connections with the Bhonsla 'family, related by marriage or by illegitimate descent to 'that house. A considerable proportion of the Government 'political pensioners are Marāthās. Many of them own 'villages or hold tenant land, but as a rule they are extra-'vagant in their living ; and several of the old Marāthā 'nobility have fallen very much in the world. Pensions 'diminish with each generation, but the expenditure shows 'no corresponding decrease. The sons are brought up to no 'employment and the daughters are married with lavish pomp 'and show. The native army does not attract them, and 'but few are educated well enough for the more dignified 'posts in the civil employ of Government. It is a question 'whether their pride of race will give way before the neces-'sity of earning their livelihood soon enough for them to 'maintain or regain some of their former position ; other-'wise those with the largest landed estates may be saved 'by the intervention of Government, but the rest must 'gradually deteriorate till the dignities of their class have 'become a mere memory. The humble members of the 'caste find their employment as petty contractors or traders, 'private servants, Government peons, sowārs, and hangers-'on in the retinue of the more important families.'

The Marāthās are a caste formed from military service, and it seems probable that they sprang mainly from the peasant population of Kunbis, who took to arms and followed Sivajī in his guerilla warfare against the armies of Aurangzeb

Some of their chiefs have the names of Rājput septs, and lay claim to this ancestry, but it is highly improbable that they can be of anything like pure blood. In 1836 it is stated [1] that the Rānā of Udaipur was satisfied from enquiries conducted by an agent that the Bhosles and certain other Marāthā families were of pure blood. On the other hand in Bombay the Marāthās take daughters from the Kunbīs in marriage for their sons, though they do not give their daughters to the Kunbīs. But a Kunbi who has got on in the world and become wealthy may by a sufficient payment get his sons married into Marāthā families and be adopted as a member of the caste. In the Central Provinces the Marāthās are divided into 96 exogamous clans which marry with each other. But the Bhonsle Rājās selected seven of the highest clans including their own, and confined their alliances to these. The names of these clans are, Bhosle, Gūjar, Mohte, Sirke, Mahādik, Pālke and Ahīrrao. Now that the authority of the ruling chief has been removed, this arrangement, though still commonly observed, has in some cases been violated. The Marāthās proper seclude their women, do not permit them to wear silver ornaments on the arms or to spin cotton, and prohibit widow-marriage. But there is one subcaste, the Deshkars, apparently outside the 96 clans, who do not observe these rules, and are in consequence considered lower than the others. They are probably a section of the caste, which settled in the Central Provinces before the acquisition of Nāgpur by the Bhonslas. Marāthās commonly wear a turban made of many folds of cloth twisted into a narrow rope, and large gold rings with pearls in the lower part of the ear.

Description of Marātha cavalry.

74. The following description of the Marāthā cavalry is given in General Hislop's Summary of the Marāthā and Pindāri Campaigns (1817-1819):—

'The Marāthās possess extraordinary skill in horseman-'ship, and so intimate an acquaintance with their horses,

[1] Bombay Census Report (1901), pages 183-85.

'that they can make these animals do anything, even in 'full speed, in halting, wheeling etc.; they likewise use the 'spear with remarkable dexterity, sometimes in full gallop, 'grasping their spears short and quickly sticking the point 'in the ground still holding the handle, they turn their 'horse suddenly round it, thus performing on the point of a 'spear as on a pivot the same circle round and round again. 'Their horses likewise never leave the particular class or 'body to which they belong; so that if the rider should be 'knocked off, away gallops the animal after its fellows, 'never separating itself from the main body. Every Marā-'thā brings his own horse and his own arms with him 'to the field, and possibly in the interest they possess in 'this private equipment we shall find their usual shyness to 'expose themselves or ever to make a bold vigorous attack. 'But if armies or troops could be frightened by appearances 'these hordes of Marāthās would dishearten the bravest, 'actually darkening the plains with their numbers and 'clouding the horizon with dust for miles and miles around. 'A little fighting however, goes a great way with them 'as with most others of the native powers in India.'

Kunbī.

75. The Kunbis number 152,000 persons and hold 440 villages. Mr. Craddock remarks of them :—'To the outside world the 'Kunbī is regarded as the embodiment of the agriculturist 'and the term Kunbī has become the generic name for a 'professional cultivator. He is certainly a most plodding, 'patient mortal with a cat-like affection for his land, and 'the proprietary and cultivating communities, of both of 'which Kunbīs are the most numerous members, are un-'likely to fail so long as he keeps these characteristics. 'Some of the more intelligent and affluent of the caste, who 'have risen to be among the most prosperous members 'of the community, are as shrewd men of business in their 'way as any section of the people, though lacking in 'education. But of the general body of the Kunbī caste it is

'true to say that in the matter of enterprise, capacity to 'hold their own with the moneylender, determination to 'improve their standard of comfort or their style of agri-'culture, they lag far behind such cultivating classes as the 'Kirār, the Raghvī and the Lodhī. While, however, the 'Kunbī yields to these classes in some of the more showy 'attributes which lead to success in life, he is much their 'superior in endurance under adversity, he is more law-'abiding, and he commands both by reason of his character 'and his caste, greater social respect among the people 'at large. The wealthy Kunbī proprietor is occasionally 'rather spoilt by good fortune, or if he continues a keen 'cultivator, is apt to be rather too fond of land-grabbing. 'But these are the exceptional cases, and there is generally 'no such pleasing spectacle as that afforded by a village in 'which the cultivators and the proprietors are all Kunbīs 'living in harmony together.'

The Kunbīs have several subcastes, of whom the Tiroles are the highest. These generally held the offices of Deshmukh under native rule, and the Deshmukh families have taken to marrying among themselves and prohibiting widow-marriage. They say that the name Tirole comes from a place Therol in Rājputāna, from which they immigrated, but another theory is that it is derived from their cultivation of the til plant. The Mānes and Dhanojes are the lowest sub-divisions. The Mānes appear to be Mānas who have become Kunbīs; they do not employ Brāhmans at their marriages, but consult a Mahār Mohturyā or soothsayer to fix the date, and the other subcastes will not eat with them. The women wear their cloths like Gonds, exposing the left leg above the knee. The Dhanojes are probably an offshoot from the Dhangar caste of shepherds, the name being derived from *dhan*, a flock of sheep or goats. The Baones take their name from the term Bāwan, formerly applied to Berār, because it paid 52 lakhs of revenue as against only 8 lakhs supplied by the Jhāri or hill country; and the

Khaires from their occupation of boiling catechu from the bark of the *khair* tree. The Dhanoje and Māna women wear cocoanut shell bangles and do not break these on the birth of a child; they are therefore looked down on by the other subcastes, who refuse to remove their leaf-plates after a feast. Curiously enough in the Tirole and Wāndhekār sub-castes, which are the highest, the keeping of a woman is not an offence entailing temporary exclusion from caste, whereas among the lower sub-castes it is. The great festival of the Kunbīs is the Polā day, on which they have their procession of bullocks. An old bullock goes first and on his horns is tied the *makhar*, a wooden frame with pegs to which torches are affixed. It is said that the Makhar bullock will die within three years. Behind him come the bullocks of the mālguzārs and then those of the tenants, in order of their standing in the village and of the traditional position held by their families. A Kunbī feels it bitterly if he is not given what he considers to be his proper rank in the procession.

Northern cultivating castes.

76. 'The Kirārs, Raghvīs and Lodhīs,' Mr. Craddock remarks, 'are exceptionally good cultivators, and represent the immigrants 'from Hindustān, as distinguished from 'the Kunbīs who are immigrants from Mahārāshtra. 'They are very industrious, yet fond of luxury, but the 'good qualities of the first two are somewhat spoilt 'by their persistent untruthfulness and of the last by their 'turbulent characteristics. The Kirārs are concentrated in 'the rich wheat country of the Thārsa plain, and the Raghvīs 'in the most fertile tracts of the Saoner and Warkher country, 'their pushing character being reflected in the kind of country 'which they have occupied. One will rarely find them cul'tivating poor soil, and the large colonies have always found 'their way to the richest sites.' The Raghvīs are the Raghuvansīs of Chhindwāra. Though of Rājput descent, they are of mixed blood, and have split off into a separate

caste, marrying among themselves. Their origin however is still plainly discernible in their height, strength of body, and fair complexion. They have split off into a sect of their own and have *gurus* or priests of their own caste, discarding Brāhmans. Their names end in Deo. Mr. Craddock continues:—'Whatever may happen to other 'classes the Raghvī will never give way to the moneylender. 'Though he is fond of comfort he combines a good deal of 'thrift with it, and the clannish spirit of the caste would 'prevent any oppression of Raghvi tenants by a landlord or 'moneylender of their own body.

'The Kirārs cannot show such a good record and include 'in their numbers some of the most tyrannical landlords in 'the District. They are much given to display. The 'richer among them are heavily weighted with jewellery, 'while the well-to-do Kirār tenant will think nothing of 'spending Rs. 1000 on his dwelling house or a mālguzār 'Rs. 5000. Extravagance ruins a great many of the Kirār 'community, and they have no compunction about preying 'on each other. Still, with all their faults, they take a high 'place among the cultivators of the District, a position which 'would be impossible if they had no compensating virtues.

'The Lodhis, as I have said, are good cultivators and 'generally men of strong character, but their constant 'family feuds and love of faction militate against their 'prosperity. A cluster of Lodhi villages forms a hot-bed 'of strife and the nearest relations are generally divided by 'bitter animosities. The Revenue Officer who visits them is 'beset by reckless charges and countercharges and no 'communities are less amenable to conciliatory compromi-'ses. Agrarian outrages are only too common in some of 'the Lodhi villages.'

Koshti.

77. Among the artisan castes the principal are the Koshtis who produce the finer kinds of cotton cloth. They number 44,000 persons or 6 per cent. of the population and reside generally

in Nāgpur, Umrer and the other smaller towns. Members of the caste own 17 villages. The description of the caste is reproduced from the Nāgpur Settlement Report. 'The 'Koshti is an inveterate grumbler and indeed from his 'point of view he has a great deal to complain of. On the 'one hand the price of raw cotton and the cost of his living 'have increased very largely; on the other hand the pro- 'duct of his loom commands no higher price than it did 'before, and he cannot rely on selling it when the market 'is slack. He cannot adopt himself to the altered environ- 'ments and clings to his loom. He dislikes rough manual 'labour, and alleges, no doubt with truth, that it deprives 'him of the delicacy of touch needed in weaving the finer 'cloths. If prices rise he is the first to be distressed, and 'on relief works he cannot perform the requisite task 'and has to be treated with special indulgence. The 'mills have been established many years in Nāgpur, but 'very few of the older weavers have sought employment 'there. They have begun to send their children but 'work at home themselves, though they nearly all use 'machine-spun yarn. The Koshtis are quarrelsome and 'addicted to drink, and they have generally been the chief 'instigators of grain riots when prices rise. They often 'marry several wives and their houses swarm with a pro- 'portionate number of children. But although the poorer 'members of the community are in struggling circumstances, 'and are put to great straits when prices of food rise, those 'who turn out the finer silk-bordered work are fairly pros- 'perous in ordinary times.' The silk-bordered *dhotīs* or loin-cloths made in Umrer are sent to all parts of India, and it is estimated that the annual sales of these cloths all over the District amount to Rs. 5 lakhs. The silk used is dyed locally by Patwīs, a small and fairly prosperous caste.

Though riotous, the Koshtis are not physically strong or brave, and in some places they will not join in a beat

for tiger, because they think that the tiger will single out any Koshti from among the beaters and devour him. They are a religious caste and are divided into numerous sects. Some are Kabīrpanthīs, others Lingāyats and Sivites. In Nāgpur they have two or three other sects, one of which consists of the followers of a local saint Kolibā Bābā. He lived in Dhāpewāra and various miracles are related of him, as that he raised a Brāhman from the dead in Umrer, and changed the contents of a number of brass vessels from water into curds to convince the unbelieving Brāhmans. The Koshtis believe, or did till recently, that the posts to which the loom-frame is fastened are enchanted, and that anyone who touches them with the leg will get ulcers up to the knee. As already stated they marry a number of wives to obtain their assistance in spinning-work and in the preparation of the frame of the warp. Without several assistants a weaver's business does not pay at present, and a wife is really a factory hand. Well-to-do Koshtis buy or occasionally steal as many women as they can, and cases in which wives are sold or mortgaged are by no means unknown. Cases of assault and riot are of frequent occurrence.

Mahār.

78. The Mahārs are the menial and servile caste of the District, and form about a sixth of the population. 'Looked[1] down 'upon as outcastes by the Hindus, they are hampered by 'no sense of dignity or family prejudice. They are fond 'of drink but are also hard workers. They turn their 'hands to anything and everything, but the great majority 'are agricultural labourers. At present the rural Mahār 'is in the background. If there is only one well in the 'village he may not use it but has to get his water where 'he can. His sons are consigned to a corner in the village 'school and the school-master, if not superior to caste 'prejudices, discourages their attendance. Nevertheless

[1] Nāgpur Settlement Report, para. 58.

'Mahārs will not remain for years down-trodden in this 'fashion and are already pushing themselves up from 'this state of degradation. In some places they have 'combined to dig wells and in Nāgpur have opened a 'school for members of their own community.' Occasionally a Mahār is the most prosperous man in the village. Several of them are moneylenders in a small way and four are mālguzārs.

Social Life and Customs.

Manners of the Marāthās.

79. Numerous differences may be noticed in the social rules and practice of the Marāthās and the people of Northern India. Sir R. Jenkins remarked of the people :—'The most remarkable feature perhaps in the 'character of the Marāthās of all descriptions is the little 'regard they pay to show or ceremony in the common inter-'course of life. A peasant or mechanic of the lowest order, 'appearing before his superiors, will sit down of his own 'accord, tell his story without ceremony and converse more 'like an equal than an inferior ; and if he has a petition to 'present he talks in a loud and boisterous tone and fear-'lessly sets forth his claims. Both the peasantry and the 'better classes are often coarse and indelicate in their lan-'guage, and many of the proverbs which they are fond of 'introducing into conversation are extremely gross. In 'general the Marāthās, and particularly the cultivators, are 'not possessed of much activity or energy of character but 'they have a quick perception of their own interest, though 'their ignorance of writing and accounts often renders them 'the dupes of the artful Brāhmans.' Among the Marāthās the *purdah* system is not in vogue, and the wives even of Marāthā Brāhmans may go about unveiled. The women of the household exercise a considerable influence and their opinions are treated with respect by the men. Several instances occur in Marāthā history in which women of high rank have successfully acted as governors and ad-

ministrators. In the Bhonsla family Princess Bakā Bai, widow of Raghujī II, is a conspicuous instance, while the famous Rānī of Jhānsi is another case of a Marāthā lady who led her troops in person, and was called the best man on the native side in the Mutiny. Here as elsewhere however the women are a strong conservative force, holding to the old deities and the strict observance of religious ceremonial, which the men with modern education are inclined more and more to discard owing to the large expenditure of time and trouble involved in its performance. Education has as yet made little progress among women, but a demand has risen among educated young men for a wife who can afford a larger measure of companionship to her husband, and this is likely to be a strong influence in its favour.

Marāthā women in past times.

80. Malcolm[1] described the Marāthā women at the beginning of the nineteenth century as follows :—'The females, both of 'the Brāhman and Sūdra Marāthās 'have, generally speaking, when their husbands are princes 'or chiefs, great influence, and mix sometimes personally 'in affairs of State. If married to men of rank they have 'usually a distinct provision and estate of their own ; enjoy 'as much liberty as they can desire ; seldom, if ever, wear 'a veil ; and give feasts and entertainments to their 'friends on births and marriages, and on particular anni-'versaries. They also expend much money on jewels and 'cloths, and even the poorest of this class has a set of 'ornaments. The higher orders of women, both Brāhmans 'and Sūdras, are remarkable for their devotion, or rather 'superstition ; and often become, from their weakness 'in this respect, the dupes of religious impostors. Ladies 'of the ruling families are usually instructed in reading, 'writing and arithmetic. The management of the house 'always constitutes part of their education. The Marāthā

[1] Memoir of Central India, II, pp. 119 to 121.

'ladies of rank may generally be described as deficient 'in regular beauty, but with soft features and an expression that marks quickness and intelligence. Though 'almost all, when called forth, have shown energy and 'courage, and some of them great talent, yet it must be 'confessed that few classes of high females exhibit more 'examples of shameless licentiousness than are to be 'found among these Marāthā Bais or princesses, whom 'circumstances have freed from the common restraints 'which the laws of society in India have imposed upon 'their sex. The poorer Marāthā females are the companions of their husbands in their labours and their 'dangers; they are generally hard-favoured from constant 'exposure, and from leading a life of toil and vicissitude. 'They have the reputation of being faithful wives and good 'mothers.'

There are no grounds for supposing that Malcolm's remarks on the moral character of the women hold good at present. The art of horsemanship also has largely died out both among men and women.

Distinctive Marāthā customs.

81. Among the Marāthā castes women accompany the marriage procession, while in the northern Districts, Baniās are the only caste of any position who allow this custom. Statistics show that girls are married at a very early age in the Marāthā Districts, but it is believed that this rule is being largely relaxed, on account of the inconvenience of marrying a boy before he has finished his education; while, if he was given a bride of six or seven years old the disparity in age would be too great. Marāthā Brāhman women of good position will wear only ornaments of gold on their head and arms; and if they cannot afford this will have none at all. In respect of food the practice of the Marāthā castes is somewhat more lax than in the north. Several even of the respectable castes, such as the Kunbīs, will eat fowls, and Brāhmans will eat onions. Oil

is largely used as a food in place of *ghī* in the Marāthā Districts, while the higher classes of Hindustānis prefer to have nothing as a sauce if they cannot afford *ghī*. A small difference of social practice is that in Hindustān betel-leaves are handed to guests ready-folded and containing the other ingredients, while among the Marāthās they are given separately and the guest is expected to make them up for himself. In the Marāthā Districts the floor of the house is washed every morning with a mixture of cowdung and water, and patterns are made on it with *rāngoli*, a powdered soft stone. This is not the custom in the north.

The great difference in the dress of the women in the north and south used to be that the former wore *lahengās* and the latter *sārīs*. The *sārī* is twisted round the hips, and then folded under them and secured at the back, while one end hangs loose and is brought over the shoulder; while the *lahengā* is simply a skirt hanging down nearly to the ankles and drawn in by a cord at the waist. But the wearing of *lahengās* has now to a great extent gone out of fashion, and the women of the northern Districts have also taken to *sārīs*, which are much less graceful. Women in the Marāthā Districts do not wear spangles on the forehead but make a patch of *kunkū* or red powder. They wear the *angia* (breast-cloth) which buttons at the back instead of the *choli*, which buttons in front. In the northern Districts the diameter of nose-rings may be from three to nine inches, but among the Marāthās they are much smaller, not more than one inch to one-and-a-half in width. The dress of the Marāthā castes is simple and plainer than in the north. Grant [1] remarked :—'In dress and appearance 'the contrast between the two races is striking; and on 'a gala day when a southern crowd presents a mass 'of white clothing and enormous red turbans, the more 'northern people may be known by their costumes of mahuā

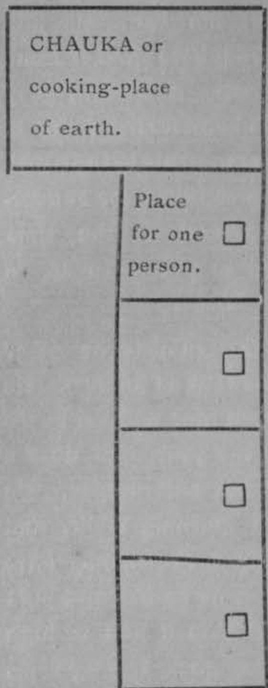
1 C. P. Gazetteer introduction, p. XV.

'green, and their jaunty, compactly twisted head-dress of 'coloured cloth.' The colouring of dress in the north has since changed, but the description of the Marāthās still holds good. Houses are less substantial here and second stories of brick are seldom seen. Lastly a custom may be recorded of Marāthā town life which is interesting for its resemblance to that of the ancient Greeks. This is that men sometimes frequent the houses of prostitutes for conversation. They are given betel-vine, and at the time of departure each person is expected to put a rupee on the tray.

Urban daily life.

82. The daily life of a clerk in Government or other service is somewhat as follows. He gets up between four and six in the morning according to the season of the year, and does a little exercise with dumb-bells or Sandow's developer. He then has some tea and goes out for a morning walk, and coming in before seven disposes of any work he may have or reads a book. Between nine and ten he bathes and puts on a clean *dhotī* or loin-cloth, and if he is a man of high caste, as most educated persons are, goes through his formal morning devotions. Formal, because he has generally ceased to consider them as having any meaning, and the spirit of agnosticism is spreading rapidly. Worship in the morning lasts about twenty minutes and in the evening about ten. But if the full ritual prescribed for a Brāhman were performed, it would take altogether about three hours. He will then take his food. This he now eats wearing only the clean *dhotī* which he has just put on. The rule among the Marāthā Brāhmans is that a special cloth of silk or wool, pure materials, should be worn solely for the purpose of taking food, but this is now going out of fashion, except at festivals and caste feasts. But food is still eaten in the *chaukā* or cooking-place, spread with cowdung and marked in squares with lines of white powder. A separate little square is marked off for each

person who is to eat, and inside this is placed a little *pāt* or wooden seat about 3 inches high, on which to sit. Rice, pulse, and vegetables are generally the materials of both meals, and wheat and juār are seldom eaten. Curds are always eaten. *Besan* or gram-flour fried with curds, clove and other spices, and *ghī*, is a favourite dish. Among the cultivating classes juār is the staple food and is eaten in thick *chapātis* or flat unleavened cakes weighing half a pound a piece and dipped in oil or *ghī*; with these are eaten vegetables, pickles and boiled peas. Another way of cooking juār is to grind it into flour and boil it with butter-milk into a substance resembling porridge: it is seasoned with pepper and vegetable oils. Among the urban classes tea is drunk with milk



and sugar in cups and saucers of enamel or earthenware. Coffee and cocoa are less popular but are coming into use. Enamelled vessels are very popular. In the more advanced community a table-cloth white or coloured, is spread on the ground and the dishes are placed on it. The people sit round it on stools and take their food from the ground. Tables and chairs are generally kept for writing. Leaf-plates or plantain leaves are still used when a number of guests are invited. After taking his food the clerk will smoke or chew betel-leaf, and then proceed to his office. The practice has lately grown up among the official class of having lunch during a short interval in office work. This is supplied by some waterman or other attendant and consists usually of gram

or boiled rice, fried in linseed oil and strained. It may be eaten either on a piece of paper or a brass plate. When he gets home from office about five or six, a man washes his hands and feet, has a little refreshment and plays tennis or goes for a walk. The higher classes of officials now have a club at Nāgpur where tennis, billiards and ping-pong are played. He will come back at 7-30 or 8 and have supper. After this he chews betel-leaf, smokes and reads the newspaper or plays on some musical instrument, going to bed about ten.

Adoption of European manners.

83. The above sketch has shown how in several respects the educated native community tend to adopt English habits, both in their way of life and amusements. Other instances can be given. Educated people wear felt caps made in England, cloth coats, and flannel or drill trousers, discarding the loin-cloth, and shoes made after the English fashion from Cawnpore or Agrā. These are now also manufactured in Nāgpur and Kamptee. A few natives of high rank go so far as to adopt *sola-topis*. Formerly most Hindus shaved their head with the exception of the *chotī* or scalp-lock, but now many of them wear their hair simply cut short like the English. The wearing of ornaments by men was a very common custom, but it is rapidly being abandoned. The educated classes at any rate have perceived the disadvantages of hoarding money. The Mārwāri Baniās leave nothing to be desired in the direction of commercial enterprise and speculation. The raising of the age of marriage has already been referred to. In former times the status of families, in regard to the desirability or otherwise of their alliance in marriage, depended on their belonging by unblemished descent to some group of the caste which had gained a traditional reputation for sanctity of conduct or purity of blood. The leading instance of this rule was of course the hypergamy of the Kulīn Brāhmans of Bengal. Nowadays the degree of eligibility of a

prospective bridegroom depends as much or more on his educational attainments as on his family. The barber and the family genealogist are no longer entrusted with the arrangement of matches, and matrimonial advertisements even appear in the papers, in which the examinations passed by the boy are duly set forth. It would be fairly safe to say that the days of Kulīnism are numbered if it still exists. Official position and wealth tend to be the factors which determine social standing, displacing family distinctions. The position of women is improving and they are encouraged to learn various accomplishments as sewing, drawing and music, besides reading and writing. In this matter the influence of lady missionaries has counted for a good deal. The prejudice against allowing male doctors to visit female patients is disappearing, and people tend to prefer the doctor with professional qualifications to the family *hakīm*. The taste for gardening, now so universal among Europeans, is extending to educated natives.

Disregard of caste restrictions.

84. The effects of education, of travel and of the constant observance of European life now exercise a disintegrating tendency on the caste system, more potent than all Muhammadan prosecution. Educated men of different castes will take food with one another, sometimes even sitting together, at other times sitting in separate rows. The Brāhman does not trouble to inquire the caste of the sweetmeat vendor at the railway station, and will drink tea or coffee in an enamelled cup, even though a Mahār, whose touch is supposed to convey pollution, may be sitting next him. Medicines are freely taken without inquiring who mixed them. The more advanced eat biscuits and tinned food, without being put out of caste, and many young Brāhmans eat meat and drink alcoholic liquor, though not openly. The veneration for Brāhmans which is the basis of the caste system, tends to disappear, nor do educated members of the caste set store by it or deplore its loss. Recently a Brāhman who had com-

mitted the great sin of killing a cat was allowed to participate in the important caste ceremonies held in the month of Shrāwan without having made any expiation. The isolation of advanced sections, who have cut themselves adrift from the caste system by permitting widow-marriage, is tending to disappear. They are invited to dine in the houses of orthodox Brāhmans, sitting in separate rows ; and these will go to their houses in return and eat food, provided that it be cooked by a Brāhman who has not lost caste.

Amusements.

85. Among the educated classes English games are rapidly being adopted by those who can afford them. Native theatrical and circus companies frequently visit Nāgpur, and also professional troupes of acrobats, dancers and snake-charmers. There are two reading libraries in the town, and these are much frequented in the evening. A well-to-do mālguzār may take in four or five weekly native papers at two to four pice a copy. Picnic parties are usually given in honor of friends who have been transferred, when the whole party is photographed. The number of bicycles is legion and a few natives now have motor-cars. The tonga as used by Europeans is supplanting the old and lighter *rengi* or light cart among the well-to-do. A gramophone may be found in the houses of many native gentlemen and they appear to have a great liking for it. Records containing native music are provided. Many also have pianos on which native music is played. Both playing and singing must be learnt by heart as there are no scores. Others play the harmonium, the flute, the *sitār* which is something like a guitar, and the *tablā* or drum. The cultivators are very fond of singing while they labour in the fields and also in the evening. When the crops are ripening picnics are held in the fields at which the new juār is parched and eaten. Coloured prints from Bombay are very popular, especially those of the more common deities. Photographs of friends are also a common form of decoration. The walls

are still adorned with the pictures of the Chitāri at marriages and at the Diwāli and other festivals. The designs are drawn and then painted with hair brushes, generally in red and blue. Cattle-races are held on the festival of Til-Sankrānt, at which two pairs of bullocks in a light *chhakrā* or cart race against each other for a distance of half a mile or so, while the owners bet on the result. Wrestling competitions are held on Nāgpanchamī, perhaps because the movements of a wrestler resemble the convolutions of a snake. Many villages have an *Akhārā* or wrestling pit, at which the boys and young men compete with each other and also practise the *deshī kasrat* or exercise which they have learnt at school. Much feeling is sometimes aroused at wrestling matches between the partisans of different champions, and the meetings occasionally end in a disturbance. The villagers have rude dramatic representations of their own, especially of the conquest of Rāwan, the demon king, by Rāma at the Rām Navamī festival or Rāma's birthday on the 9th of Chait. Satirical sketches are also performed, at which the peculiarities of European and native officials are caricatured. *Dhandhār* is a sort of combined dance and dramatic performance held at the Diwāli festival, somewhat resembling the beginnings of the Greek play. The young men and boys, some of whom are dressed as girls, stand in two lines, holding sticks which they beat against each other as they dance, while in the centre two actors enact some performance. All classes gamble at the Diwāli festival, playing at different games. The Hindu playing cards are round; there are ten suits, one for each incarnation of Vishnu, the boar, the tortoise, Rāma, Krishna and so on. In each suit there are twelve cards, the ace to the ten, and two court cards, the Wazīr and the King.

Children's games.

86. Hindu children have the same amusement as English ones so far as their means permit. Dolls are made of clay and cloth, and occasionally their marriages are celebrated

with feasts and fireworks. On Aktī day in the month of Baisākh, girls take out two clay images of a man and a woman and worship them in the jungle. Swinging and walking on stilts are the pastimes of the month of Shrāwan (August), the idea being that the crops will grow as high as the stilts or swing. Kite-flying is a favourite amusement with old and young in the open season, and the game of *patang larāna* which consists in trying to cut the strings of each other's kites is played. When the string of a kite is cut and it falls to the ground, it becomes the property of the first person who can pick it up. Formerly the weavers used to prepare a special cord for kite-flying, but English thread is now generally used. Before flying the kite the thread is rubbed with paste mixed with glass dust to make it hard and sharp. The price of kites varies from eight for a pice to half an anna each. Both old and young are very fond of fireworks. The principal ones used in the Central Provinces are the *anār*, the *phatāka*, and the *mehtāb*. The *anār* is put on the ground, and when set fire to the flame, shoots up to a considerable height, while the *mehtāb* is placed on the end of a stick and gives a bright glare. The *phatākas* or crackers are made with potash and other ingredients in the form of a ball, and when thrown down on the ground go off with a loud report. These are commonly used to celebrate the Diwāli and add a pleasant excitement to driving through the bazar at that time.

The poor students.

87. In former times poor students commonly lived on alms according to what was known as the *madhukarī* system. The word *madhukarī* signifies literally a cake or bread baked on live coals, and has come to mean food given as alms to pilgrims. The students would go round the town begging cooked food during the day, and in the evening receive instruction in the sacred books at the houses of their preceptors. Nowadays the students no longer beg for cooked food, but go round in turn to the houses of native gentlemen, who have agreed

to give them a meal. A few students who supported themselves in this manner while they got their education have risen to high positions in Government service.

LEADING FAMILIES.

88. Rājā Raghujī Rao and Kunwar Lakshman Rao are the representatives of the Bhonsla ruling family of Nāgpur. The family name is derived from a village Bhosāwat near the fort Bhosā in Bombay. Their father Jānojī Rao was adopted in 1855 by Daryābai the widow of the last Bhonslā Rājā Raghujī III. Their real grandfather was a member of the Ahirrao clan and married a great-grand daughter of Raghujī II, so that they belong by blood to the family on the mother's side. The eldest member of the house retains the title of Rājā of Deor, a village in Bombay, and is addressed as Rājā Bahādur. The brothers receive pensions of Rs. 50,000 and Rs. 12,000 respectively from a fund created from the personal property of Rājā Raghujī III, while their mother and sisters get a pension of about Rs. 30,000. They have also succeeded to the large private estate of the late Rājā which yields an income of about three lakhs, a considerable part of the estate being held free of revenue. During the Rājā's minority the estate was managed by the Court of Wards and was released free of encumbrances in 1893. In 1900 it was partitioned between the brothers, both of whom are somewhat heavily involved. The Rājā and his brother possess some very valuable jewellery. Their marriages are arranged with the other Marāthā clans of high standing, and Lakshman Rao has recently married a relative of the Gaikwār of Barodā. Raghujī Rao is 35 years old and has two sons. Lakshman Rao is 33 and has a daughter.

The Bhonsla family.

89. The Gūjar family are closely connected with the Bhonslas. The present representative Naolojī Rao Gūjar,[1] is the adopted son of Yashwant Rao, who was grandson of a daughter of Mūdhojī I. He inherited

Marāthā houses related to the Bhonsla.

[1] Died of an accident on 1-9-08.

the estate given to this daughter and has 48 villages, which are held free of revenue and yield an income of Rs. 35,000 a year. Naolojī Rao is about 38 and is an Honorary Assistant Superintendent of Police and Honorary Magistrate. He has one married daughter and is somewhat heavily involved. Another Gūjar family is that of Pāndurang Rao, whose father was one of the seven Councillors of Raghujī III. He has a small political pension. Venkat Rao Gūjar is the adopted son of Krishna Rao Aba Sāhib, who was grandson of a sister of Raghujī III. He has a large estate of 50 villages, of which 45 are held free of revenue. He is a minor and the estate is under the management of the Court of Wards, while Venkat Rao is being educated at the Rājkumār College, Raipur. The Sirke family are also closely connected with the Bhonslas, Sirke being one of the clans with which the ruling family intermarried. They derived their name from the goddess Shirkā, who is said to have assisted them in the conquest of a portion of the Konkan. The family is now in straitened circumstances and has very little property. Dāji Sāhib Sirke, who was its head, died in 1907. His sister Daryā Bai was the wife of Raghujī III and adopted Jānojī, the father of Raghujī Rao and Lakshman Rao. And another sister was married to Yashwant Rao Gūjar, the adoptive father of Naolojī Rao. The family also intermarried with the Rājās of Sātāra.

The Ahīrrao family are also connections of the Bhonsla house, and Jānojī, who was adopted by the widow of Raghujī III, was a member of it. Ahilojī Rao Ahīrrao, who died in 1906, was Jānojī's brother, and was succeeded by his son Rāmchandra Rao. His estate, consisting of four revenue-free and three other villages and yielding an income of Rs. 18,000, is now under the Court of Wards.

The Chitnavīs family.

90. The Chitnavīs family of the Parbhū caste is of historical note and has retained its importance down to the present time. The word Chitnavīs is a corruption of a Persian

word meaning secretary, and has been adopted by the family as for five generations they served as secretaries to the Bhonsla rulers. Rukhmājī Ganesh was Chief Secretary to Raghujī I. His son Chimnājī represented the Nāgpur Rājā at the Peshwā's Court, and his nephew Krishna Rao was first minister to Raghujī II. Chimnājī's brother Gangādhar Rao was also a secretary, as also was his son Mādho Rao, who after the annexation served as an Honorary Magistrate and obtained the title of Rao Sāhib. He left two sons, Gangādhar Rao and Shankar Rao. The Honourable Mr. Gangādhar Rao Chitnavīs, C.I.E., one of Nāgpur's most prominent citizens, is an Honorary Magistrate of the 1st class and has three times served on the Viceroy's Legislative Council. He is Chairman of the District Council and of the Nāgpur Municipal Committee. Mr. Shankar Rao Chitnavīs is a Statutory Civilian and a Deputy Commissioner in the Central Provinces Commission. He obtained the Kaisar-i-Hind gold medal for his services during the famine of 1900. The family own a fine estate of 150 villages and have also an extensive banking business and shares in mills and factories.

Bansī Lāl Abīrchand.

91. Dīwān Bahādur Seth Kastūrchand Dāga is the leading banker of Nāgpur. His family are Mahesrī Baniās of Mārwār and his father Bansī Lāl Abīrchand, by whose name the firm is still known, rendered valuable services to the British Government during the Mutiny, for which he received the title of Rai Bahādur and a gold armlet. Seth Kastūrchand owns 17 villages, a cotton mill and several gins and presses and has an extensive banking business with agents in a number of large towns. His firm do not as a rule lend money to agriculturists or try to acquire land, but confine themselves to exchange banking and also act as Government Treasurers in several Districts. Seth Kastūrchand has given large donations to public institutions like the Dufferin Hospital, the Victoria Institute and the Bansī Lāl dispensary, and rendered

great assistance to the Bīkaner State, in which his home is situated, during the famine of 1900. He has been made successively Rai Bahādur and Dīwān Bahādur, while his son, Biseshwar Dās, is a Rai Bahādur.

Leading families of Nāgpur.

92. Rao Bahādur Ganpat Rao Ghatāte is a prominent banker and landowner of Nāgpur, his estate consisting of about 150 villages. These have all been acquired by himself and his father, Gopāl Rao, who began as a very poor man. Ganpat Rao remitted large sums to his debtors during the conciliation proceedings. Shankar Rao Pandit is great-grandson by adoption of Nārāyan Rao Pandit, who came from Benāres at the request of the Bhonslas about a century ago and acted as their representative with the British Government. He received grants of property both from the Bhonslas and the British, including five villages in Jubbulpore free of revenue in perpetuity. Shankar Rao is a boy of about ten years of age and his estate consists of 12 villages, yielding about Rs. 15,000 a year.

The Upādhe family of Brāhmans have been the family priests of the Bhonslas from the time of Rājā Raghuji I. They are much respected by the Brāhman community of Nāgpur and formerly had a considerable estate; but it has been reduced by alienations for debt and now consists of only five villages held free of revenue. Ganesh Dikshit Upādhe is about 70 years of age.

The Subhedār family belonged originally to Khāndesh, and their ancestor, Venkat Rao, was Subhedār or District Officer of Chhattisgarh in the time of Raghujī I, having under his jurisdiction the semi-independent *zamīndāris* and Feudatory States. His sons Sakhārām and Ganpat Rao were Subhedārs of Chhattīsgarh and Bhandāra respectively and the latter entered the British service after the annexation. Of his three sons Govind Rao Subhedār is an Hono-

rary Magistrate and Manager of the Bhonsla Estate, and Sadāshiva Rao and Nīlkanth Rao are respectively District Judge and Sub-Judge in the Provincial Judicial Service. The family own 15 villages in Bhandāra. The Būtīs are a well-known banking family, being Charak Brāhmans by caste. They are descended in three lines from one Sadāshiva Būtī, who resided at Kuhī in Umrer tahsīl. Their original name was Gharjāle and the surname of Būtī is said to be a corruption of *butlī*, a small brass pot, as they formerly carried this pot to collect money from their debtors. The eldest grandson of Sadāshiva Rao was Rai Bahādur Mukund Bālkrishna Būtī, who was of a very public-spirited character. His son and successor is Gopāl Rao, who has three sons; his estate is worth about a lakh a year. Rao Bahādur Vināyak Jāgeshwar Būtī was another grandson of Sadāshiva, and also gave large donations to public objects. He was succeeded by an adopted son Bālājī. A third branch is represented by four brothers, great-grandsons of Sadāshiva, of whom three, Atmārām Amrit, Krishna Rao and Rāmchandra Rao are alive, and the first and third of these are Honorary Magistrates. All the members of the family are wealthy. The Kaptān family who derive their surname from the English word Captain, also held high military offices under the Bhonslas.

Principal families of the District.

93. The Deshmukhs of Umrer are Marāthā Brāhmans, and are the descendants of one Hīrajī, who received a grant from Raghujī Bhonsla in the 18th century, in reward for the good arrangements which he made in his village for the supply of Raghujī's camp. Hirajī maintained a regiment and was in charge of a subdivision. The family are now divided into several branches. One member Rām Rao is an Honorary Magistrate and member of the Umrer municipality. His brother, the late Rao Bahādur Trimbak Rao, received the Kaisar-i-Hind gold medal. They do not own the village of Umrer but have a grant of

land, which was attached to the office of Deshmukh, and they have an estate of about 50 villages in Nāgpur and Chānda.

The Naik family of Umrer are Jambu Brāhmans, the founder of the family having migrated from Gujarāt and settled in Chimur about two centuries ago. He and his descendants lent grain on the *Wārpattā* or *Sawāi* system and the family are known as Wārkari in commercial circles. His grandson got the title of Naik as being the most prominent man in the village, and the family have adopted it as a surname. He was made a collector of revenue for a small area under the Marāthās, and had the right to receive a rupee or a cocoanut for every marriage or widow-marriage which was celebrated within his jurisdiction. The family now consists of three branches represented by Nārāyan Shrīdhar Naik and Janārdan Dāmodar Naik of Umrer and Rājeshwar Naik of Chimur. They have some landed property and a moneylending business. Ganpat Rao Deshmukh of Mohpā has an estate of ten villages, which has been held by his family for the last hundred years. The villages of Pārdi and Khairi were bestowed by the Gond Rājās on Bābājī Deshmukh before the coming of the Marāthās on a quit-rent of Rs. 599, and they are still held on the same. These villages were included in the Mohpā *jāgīr*, which was granted by Raghujī III to Nawāb Hasan Alī Khān and the Deshmukhs held under him. Hasan Alī Khān became indebted to the extent of a lakh and-a-quarter and the British Government paid off the debt and resumed the *jāgīr*.

The Deshmukh of Kalmeshwar is a Rājput by caste, and his ancestors held a considerable estate under the Gond Rājā Bakht Buland, for whom he maintained a force of horse and foot. This however was resumed at the annexation and the present representative only owns the village of Kalmeshwar. One of the leading men of the Kātol tahsīl is the proprietor of Yerlā, Kartārām

Patel, a Kunbi. He owns 27 villages, of which nearly all have been acquired by his father or himself. One of his ancestors was a Sardār at the Mughal Court at Delhi and obtained a drum and a flag from one of the Emperors which are still in the possession of the family and are carried in procession on festival days.

Prominent citizens of Nāgpur.

94. Among the gentlemen who, though not landowners of the District, are connected with it as being leading citizens of Nāgpur, the most prominent is Sir Bipin Krishna Bose, C.I.E. He belongs to the Sabhā Bazar Rāj family and received his education in the Presidency College, Calcutta. His brother was the first Statutory Civilian in Bengal and rose to be a Collector. He came to the Central Provinces in 1872 and to Nāgpur in 1874. When the Nāgpur municipality was reconstituted in 1883, he was appointed its first Honorary Secretary, and has ever since been connected with it. He has been Secretary of the Neill City High School since 1876, and when he took part in founding the Morris College in 1883, he became Secretary to the governing body and has since held the post. He was a member of the Famine Commission of 1898 and has been three times nominated to the Viceroy's Legislative Council, and has received successively the distinctions of Rai Bahādur, C. I. E., and a Knighthood.

When in the eighteenth century the Nimbālkar family received the tract round Bhusāwal in the Khāndesh District with a commission for collecting *chauth*[1] and *sirdseshmukhī* on behalf of the Peshwā, their chief Mānkaris or councillors were the Pandits. This family resided in Nimār for a century and-a-half and after the annexation were Kamaishdārs or revenue-collectors under the Political Agent. Raoji Rājārām Pandit rendered valuable services during the

[1] *Chauth* was the fourth of the revenue which the Marāthās claimed in all tracts where their armies penetrated, and *sirdeshmukhi* an extra due for the trouble of collection.

Mutiny. The present head of the family is Rao Bahādur Rāmkrishna Rao Pandit, who has been a distinguished member of the Provincial Civil Service, acting as Dīwān of Nāndgaon and Superintendent of Bastar. His eldest son, Vāsudeo Rao Pandit, is a barrister and has received the title of Rao Bahādur and a Kaisar-i-Hind medal. His younger son is also a barrister. Rao Bahādur Rājārām Sītārām Dikshit belongs to one of the Nāgar Brāhman families who migrated from Gujarāt to Nimār. His father was a prominent merchant in Nimār and undertook journeys to Bombay for commercial purposes before the railway was built. On one of his journeys during the Mutiny he fell in with Tāntia Topī's army and was mulcted of his merchandise. Rājāram Sītārām Dikshit managed three famine camps in Nāgpur in 1900 with great success, and has made liberal donations to other public objects. He is an Honorary Magistrate and a member of the municipality. The Jāmdār family were 'Keepers of the Wardrobe' to the Bhonslas, as their name signifies. Their present representative, Yado Rāo Jāmdār, is a Munsiff and holds the village of Palsāt in Umrer tahsīl as a revenue-free grant. The Kālikar family were 'Keepers of the Privy Purse,' and after the annexation were employed as Superintendents of the Treasury by the British Government. Vithal Rao Kālikar is a Munsiff and has a grant of land.

CHAPTER IV.

AGRICULTURE.

SOILS.

Composition of soil.[1]

95. The District lies towards the eastern boundary of the Deccan trap area and hence the soils of the District are either true black cotton soil or else formed from a basis of cotton soil modified by intermixture with soils derived from the gneissic formation which surrounds it. This black cotton soil or *regār* determines to a large extent the nature of the agriculture of the District. There is no general agreement as to how this wide expanse of *regār* has been formed. Its character is that of an alluvial backwater or lake deposit, but it is difficult to see how such a formation can have occurred on the Deccan plateau. In many places there is no doubt that the soil is derived by the disintegration of basaltic trap rock and in others by the decomposition of other argillaceous rocks. That the process of *regār* formation is a superficial one can be well seen in the undulating country of the Nāgpur District. On the tops of the flat hills where the surface suffers less from erosion than the sides, the soil is dark brown in colour. That upon the sides of these hills being more recently formed is reddish brown, while in the valleys below, where the rain-wash gradually accumulates, the soil becomes of a true black cotton-soil colour. It is largely as a result of this erosion and subsequent accumulation that the agricultural value of the land of this District varies so enormously.

The origin of the black colour is also a question of doubt. It is generally ascribed to the presence of organic matter, but this material is scarcely present in sufficient quantity to account for the blackness altogether and it is quite possible

[1] This para. has been wrtiten by Mr. Plymen, Agricultural Chemist.

that some of the colour at any rate is due to mineral matter. Chemically, black cotton soil shows no very striking differences from other Indian soils. The proportions of iron, alumina, lime and magnesium are fairly high, particularly the latter; while of the more essential plant foods, potash appears to be present relatively in more abundant quantity than phosphorous and nitrogen. If compared with English soils the amounts of phosphates and nitrogen do certainly appear to be small and this fact has doubtless given currency to the idea that the black cotton soil is becoming impoverished. With the exception, however, of certain alluvial deposits in Assam this soil compares favourably with the generality of Indian soil in this respect. Physically *regār* is essentially a clay soil and as such is very sticky when wet, retentive of moisture and easily loses its tilth if cultivated at the wrong time. The presence of lime, however, to a certain extent counteracts these qualities and renders the soil friable when dry besides giving it its most characteristic property,—that of shrinking and cracking. This property is due to flocculation of the clay particles in the presence of a dilute solution of some lime compound, but the contraction thereby caused only become apparent when the soil dries. The best *regār* land contains very few large particles, but inferior qualities frequently contain nodular limestone or *kankar*. This deposition of a calcareous pan is of general occurrence in soils of arid regions. In the east of the District the underlying rock is crystalline and yields a soil more sandy and pervious than *regār* and one therefore more adaptable to irrigation. Where the two geological formations intermix a free working loam is obtained, but this is not found over any large area.

Classes of soil.

96. The best deep black soil, known as *kāli*, occurs only in small areas, covering altogether less than two per cent. of the cultivated area. It is found round Kalmeshwar and Saoner, in the Wardhā valley and in the Nāgpur and Kamptee plain.

The principal soil of the District is that known as *morand*, under the two classes of which come two-thirds of the cultivated area. It is of comparatively slight depth, dark to light brown in colour, of light texture and easily culturable, and containing a greater or less quantity of limestone pebbles (*kankar*). This soil is eminently suited to cotton and juāri and makes excellent rice land when embanked, requiring but little irrigation if the rainfall is normal, and producing a second crop. In the northern part of the Rāmtek tahsīl, and especially in the valley of the Sūr river, the *morand* soil is of very light colour. *Khardī* is the term used for shallow soil not more than a cubit deep, but various qualities of land were classified under this designation as being of equivalent value. It is applied to soil much mixed with sand and hence of a greyish colour, and also to the sandy soil formed from crystalline rock, which constitutes the regular rice land and is elsewhere known as *sihār* and *matāsi*. About 27 per cent. of the cultivated area was classed as *khardī*. The only remaining soil of any extent is the red gravel covered with boulders, found on the summits and slopes of the trap hills. This is known as *bardī* and covers 5½ per cent. of the cultivated area, occurring principally in the Kātol tahsīl. The land under crops thus contained at Mr. Craddock's settlement a very small quantity of the really poor soil which requires resting fallows. Small stretches of *retāri* or sandy soil overlying sandstone rock occur in the north of the Rāmtek tahsīl. About 1200 acres were classed as *kachhār* or alluvial land fertilised by the deposit of silt, the largest patch of which is in the bed of the Kanhān at Neri.

Differences of position in wheat land.

97. The usual allowances were made for advantages and disadvantages of position. Fields recorded as *pathār*, hilly, or *wāhuri* cut up by erosion, amounted to about 14 per cent. of the better-class land or that classified as capable of growing wheat. Nearly two-thirds of the

cultivated area of 1,300,000 acres fell into this category, the bulk of the remainder being of somewhat inferior quality and known as minor crop land. Distinctions of position were not applied to this latter area; otherwise no doubt many fields in the Kātol tahsīl, where the surface is noticeably undulating, would have been classed as *wāhuri*. As it was most of the land subject to injury from erosion lay in the Umrer tahsīl. Land classed as *rān*, or subject to the depredations of wild animals, is common in the villages near the hills in both Nāgpur and Umrer. The embankment of land is regularly practised only in certain level areas along the Bhandāra border in order to enable a broadcasted rice crop to be grown with a spring crop to follow. Elsewhere embankments are made only at field corners or along one side of a field to protect it from erosion. Out of 820,000 acres of land recorded as capable of growing wheat, 640,000 or nearly four-fifths were classified under the ordinary or *sādhāran* position. Mr. Craddock was of opinion that in future it would be desirable to have a separate class for level or *samān* fields distinguishing them from ordinary fields, which are not quite level but yet of not so irregular a surface as to be recorded as hilly or cut up by erosion.

Rice land.

98. About 29,000 acres only were recorded as rice land, and of this a half was classed as capable of irrigation, though in ordinary years so large an area is not actually irrigated. The bulk of the remainder is shown as *samān* or level, high-lying land not being as a rule cropped with rice. Although the rice land is of trifling extent, some villages in the west and in the Dongartāl tract are entirely dependent on this crop.

Other kinds of land.

99. Minor crop land covered 460,000 acres or rather more than a third of the cultivated area. Although this designation is meant to indicate inferior quality either from disadvant-

age of position or shallowness of soil, it includes much valuable cotton and juāri land in the Kātol tahsīl and elsewhere. About 17,000 acres were classed as garden land. A total of 15,000 acres distributed among the different classes was recorded as *khāri* or land manured by the drainage of the village.

STATISTICS OF CULTIVATION.

Occupied and cropped area.

100. Of the total area[1] of the District in 1905-06, 532 square miles or 14 per cent. consisted of Government forest, 343 square miles or 9 per cent. were classed as not available for cultivation and 419 square miles or 11 per cent. were shown as culturable waste other than fallow. The remaining area, amounting to 2554 square miles, or 1,630,000 acres, and constituting 66 per cent. of the total or 77 per cent. of the village area excluding Government forest, was occupied for cultivation. Even at the 30 years' settlement the occupied area was 1,400,000 acres or 67 per cent. of the village area at that time. In the intervening period up to Mr. Craddock's settlement, about 42 square miles of Government wastes were made available for cultivation. At that settlement (1891-93), the occupied area was 1,570,000 acres, showing an increase of 170,000 acres or 12 per cent. during the thirty years. During the ensuing 14 years up to 1905-06, the increase has been 65,000 acres or 4 per cent. on the settlement figure. At Mr. Craddock's settlement the unoccupied area, excluding Government forest, was 845 square miles and he estimated that 340 square miles of this were actually culturable. About 100 square miles have since been taken up, at the rate of about 4500 acres a year, or very nearly the same as the average annual increase during the 30 years' settlement. It may be estimated that

[1]The area taken in this paragraph is that obtained from the village papers. It is smaller than the professional survey area by 9 square miles.

the future progress will be slower. At settlement the proportion of occupied to total area in each tahsīl was:—Nāgpur 79; Umrer 70; Rāmtek 74; Kātol 75. The corresponding figures for 1905-06 were:—Nāgpur 81; Umrer 72; Rāmtek 78; Kātol 78

101. Of the occupied area in 1905-06, a total of 220,000 acres or 14 per cent. were under new and old fallow, the new fallow being 40,000 acres and the old 180,000. At settlement 310,000 acres or 20 per cent. of the occupied area were fallow, and the cropping is now therefore considerably more close. The proportion of cropped to occupied area in each tahsīl at settlement, the balance being fallow, was Nāgpur 79; Umrer 71; Rāmtek 83; Kātol 88. Mr. Craddock remarked on this subject:[1] 'The Kātol tahsīl is the best 'cultivated, in spite of the larger proportion of stony land 'which it contains; Rāmtek comes next and Umrer is last. 'Some allowance must be made in Umrer for the fact that 'the surface is undulating and dries rapidly, but the tahsīl 'is as a whole much under-cultivated. The cultivators there 'are the least industrious; holdings are large and rents low; 'while the number of uninhabited villages, known as *rīths*, 'is disproportionately high. Though its best soils are 'inferior to the best soils of Kātol, it has a much smaller 'proportion of poor land, and resting fallows are seldom a 'real necessity. There is thus great scope for increase of 'cropping in Umrer, as well as over part of Nāgpur tahsīl 'where similar conditions prevail.'

Fallows.

'Closer and more careful cropping might be expected in the 'Nāgpur tahsīl than in localities further removed from the 'city. But the contrary is the case. A large number of 'holdings in villages round the capital belong to Brāhmans 'of Nāgpur, and other absentee cultivators, whose farms 'are not properly supervised, and among the regular agri'cultural classes holding land in the neighbourhood many

[1] Settlement Report, para. 67.

'pay more attention to bringing fuel and grass into the 'town for sale, or to plying carts for hire, than to the 'cultivation of their lands. Cow-dung manure is made up 'into fuel cakes instead of being utilised in the fields, 'and bullocks are used for drawing carts when they should 'be at the plough. As one gets further from Nāgpur these 'causes cease to operate, and some of the outlying parts 'of the tahsīl are much better cultivated.' Mr. Craddock calculated that if the cropping within the occupied area was as close over the rest of the District as in the Kātol tahsīl, another 128,000 acres would be added to the cropped area. As has already been seen the fallow land has since decreased by 90,000 acres or rather more than half of this amount.

Cropped area.

102. The total cropped area in 1905-06 was nearly 1,420,000 acres or the maximum recorded. At settlement the cropped area was 1,260,000 acres and the increase has been 153,000 acres or 12 per cent. in 14 years. As has been shown the increase has been obtained both by expansion of the occupied area and contraction of fallows. At the 30 years' settlement the cropped area was 1,150,000 acres and the increase up to last settlement was 114,000 acres or 10 per cent. as against 153,000 acres in the 14 years since settlement. Nāgpur has the eighth largest cropped area in the combined Provinces, being exceeded by the three Chhattīsgarh Districts and all the Berār Districts.

Double crops.

103. In 1905-06, double crops were grown on 6000 acres and the net cropped area was 1,411,000 acres. After-crops are grown principally in the rice tracts, the pulses urad and *lākhori* being sown in the damp fields. Late rain is necessary for second crops; the maximum area cropped twice was 17,000 acres in 1897-98 when the late rains were heavy and the minimum 2000 acres in the famine year of 1899-1900.

104. At settlement the spring and autumn harvests were of nearly equal importance, the former occupying 49 and the latter 51 per cent. of the cropped area. Since the settlement the greatly increased production of cotton has largely altered the proportion of the harvests and in 1905-06 autumn crops occupied nearly 1,050,000 acres, or 73 per cent. of the cropped area, and spring crops only 370,000 acres, or 27 per cent.

Distribution of crops.

Mr. Craddock describes the agricultural character of the different parts of the District as follows :—

'The north Bhiugarh and Dongartāl tracts (where the 'large blocks of Government forest included in the east 'and west Pēnch ranges are situated) bear considerable 'resemblance to the Sātpurā country which they border. 'The soil met with in them is mostly light, the villages 'small and poor, and the cultivators belong to the aboriginal 'tribes, consisting principally of Gonds and Gowāris. On 'the other hand, in the whole of the country drained by the 'Wardhā river and its tributaries, we find land of exceptional 'fertility, producing both *rabi* and *kharīf* crops, interspersed 'with many garden villages. Even in the more rugged 'portions of the Kātol tahsīl the flat-topped stone-covered 'trap hills which abound, in seasons of adequate rainfall, 'will grow excellent crops of juār and cotton. The 'Waingangā plain is essentially the wheat tract of the 'District, and wheat, linseed and pulses are the principal 'crops produced. The rainfall is too heavy for cotton, 'and juār is not very successful, except on well-drained 'areas met with along river banks. The edges of the 'plain begin to resemble the tracts which border it. On 'the east along the Bhandāra border, rice is of some 'importance, and tanks and ponds abound. On the west, 'where the Wunnā valley is approached, autumn crops 'are more important. The agricultural character of the 'country lying between the two main divisions of the

'District has also distinctions of its own. But it may be 'generally said of it, that in the north (the country round 'Kalmeshwar and Saoner) it resembles the rich portions 'of the Wardhā valley, in the south (the Wunnā valley) it 'is more like the poorer portions of the Kātol tahsīl. The 'remaining division of the country, or the Nānd valley, 'which consists of the Sirsī and a portion of the Belā 'groups, is a wheat-growing tract. The proportion of 'juār, cotton and other *kharīf* crops produced is remark- 'ably small. This tract is still much under-cultivated; 'the tenantry are lazy and resourceless. They pay un- 'duly low rents, and allow half their holdings to be 'fallow.'

Statistics of crops.

105. In 1905-06, cotton covered 476,000 acres or 34 per cent. of the cropped area, juār 423,000 acres or 30 per cent., wheat 211,000 acres or 15 per cent., linseed 67,000 acres or 5 per cent., arhar 115,000 acres or 6 per cent., and til, rice and tiurā between 20,000 and 30,000 acres each. At settlement wheat and juār were of equivalent importance covering each 25 per cent. of the cropped area, while cotton and linseed occupied 12 per cent. each. The District thus had four staple crops, while it may now almost be said to depend on two.

CROPS.

Cotton. Varieties.

106. Cotton (*Gossypium*) is the most important crop in the District and at present the source of its especial prosperity. The area under it has increased from 70,000 acres in 1863 to 149,000 at the settlement of 1892-94 and to 476,000 in 1905-06. In recent years the increase in this crop has been extraordinary as shown by the following figures:—1897-98, 125,000; 1899-1900, 159,000; 1900-01, 238,000; 1902-03, 303,000; 1903-04, 365,000; 1904-05, 404,000 acres. The principal variety is that known as *jarī*, a mixture of our varieties *G. neglectum varsvera, malvensis, roseua*



COTTON MARKET, NAGPUR.

Bemrose, Collo, Derby.

and *cutchica*. Its lint is strong but short and coarse; it gives a larger outturn than the other varieties and the plants are also more vigorous and hardy. The comparatively long-stapled variety known as *banī* (*Gossypium indicum*) is little grown. In Kātol a third variety is known, designated as *ghogli* or *vilāyati jarī* by the people. It grows mixed with *jarī* and is the Upland Georgian (*Gossypium hirsutum*) of which seed was distributed by Mr. Fuller in 1887. The leaves are large and entire, not divided into segments, and it is said to have a white and pink flower. The people do not grow it willingly as they say that the outturn of lint is small compared to *jarī*. Hinganghāt *banī* will produce counts of yarn of 40's and *jarī* of 10's and 12's, though the cotton is frequently used for spinning lower counts than those of which it is capable. *Banī* has a staple of $\frac{7}{8}$ths of an inch and *jarī* of $\frac{1}{2}$ to $\frac{3}{4}$ths.

Methods of cultivation.

107. The land is prepared for cotton with the *bakhar* or paring-plough, which is taken over it two or three times before the breaking of the rains. The seed is sown through a hollow bamboo tube called *sartā* which is trailed in the wake of the *bakhar* and held up by a woman who drops the seed through it. The seeds are previously washed in cowdung and water to prevent them adhering together by the threads of lint. The proper season for sowing cotton is from the first to the third week in June in Mriga Nakshatra. Some cultivators sow before the breaking of the rains. Cotton is often mixed with tūr or arhar in the proportion of one line of the latter after nine, eleven, or fifteen lines of cotton, the smallest proportion of tūr being sown in the best soil. Double lines of tūr are now usually confined to inferior soils, where the plants will not grow so high, and will therefore be less liable to stunt the cotton. A few plants of the *ambāri* fibre (*Hibiscus cannabinus*) or of castor are sometimes mixed with the tūr. It is not considered locally that this practice is of any

advantage to the cotton, but was rather adopted in order to give the bushy tūr plants room to spread. In fact as already stated the cotton plants growing next to the tūr are stunted but it is known that arhar like other plants of the order *Leguminosæ* contributes to the fertility of the soil by the power which its roots have of attracting nitrogen. Further the ground is said to be opened up by its deep penetrating roots and to derive some advantage from the decayed foliage. It is also the favourite food pulse of the Nāgpur country. In the best soil cotton is now sown alone to an increasing extent. Unmixed cotton is called *māri parhāti.* The crop is weeded several times by passing the *daurā* or *dhundia,* the small scarifiers, backwards and forwards between the lines, this operation being sometimes carried out as many as ten times. The growth of the plants is rendered more vigorous by the disturbance of their roots. The space between the plants is weeded by hand. The plants flower in September and the harvest lasts from the beginning of November to the end of February. Each field has four or five pickings, varying with the rainfall, of which the second and third usually give the most lint. The first picking is called Sitādevī because when the cultivator goes to the field, he makes a small mound of earth, places a little cotton on the top and offers curds and milk to the goddess. The lint can be picked clean in the early morning owing to the effects of dew on the foliage. Later in the day the mature stipules and leaves get dry and crisp owing to the heat of the sun and stick to the lint. The picking is usually done by women and children who work more deftly than men. Each plant has about 20 branches and each branch about 3 bolls on an average. Cotton is an exhausting crop, and if sown in two successive years the land must be turned up with the *nāgar* or regular plough and manured. The crop is generally benefited by manure and the cultivators give it as much as possible. Fifteen loads per acre may be considered

a full average application. It is sown alternately with juār, and also after wheat with juār in the third year. It does not do well after linseed. The crop thrives in comparatively shallow black soil with a light rainfall. With prolonged wet weather the plants rapidly turn yellow and the yield suffers both in quantity and quality. Heavy rain in November when the bolls are bursting is the most disastrous; the cotton that has formed is discoloured and spoilt and many immature bolls are battered to the ground and destroyed. A proverb says 'If rain falls in Chitrā or Swāti Nakshatras (9th October—6th November) there won't be enough cotton for lamp wicks.' This saying must be taken, however, to refer only to heavy or excessive rain which fortunately is rare.

Cotton pests.

108. The following description of pests is taken from Mr. H. B. Maxwell-Lefroy's 'Indian Insect Pests' (Calcutta, 1906), to which reference may be made for a full description of cotton pests and of the beneficial insects which prey on them. The cotton aphis is a small insect coloured in dull yellow or black. The insect appears in the rains and, if cotton plants are available, often remains on them till the end of the cold weather feeding on the leaves. The growth of the plants is stunted. In cloudy weather the winged insects fly far over the field and found new colonies. Hence it is that after cloudy weather the aphis becomes abundant and suddenly appears over large areas. They excrete a sugary liquid, which, falling on the leaves below, dries to a sticky coating. This appearance is familiar to the cultivators and is known as *mowāla*, though they often do not realise at all that the plants are attacked by an insect, and consider it to be a disease produced by cloudy weather. The insect is preyed on by various enemies, as the Ladybird beetle and others. The only sound artificial remedy is spraying the plants. Another pest, *Sphenoptera gossypii* or the cotton stem borer, attacks the plants. The

imago lays eggs on the bark of the stem which hatch into a small white grub. This grub tunnels into the interior of the stem and feeds on the inner protoplasmic substance of the plant, going on boring until it turns into the pupa, when the plant is killed. The imago is a beetle of a copper metallic colour. Plants which turn yellow and wither in August or September usually contain this grub and they should be pulled up and burned. The commonest pests, however, are the pink and spotted boll-worms which are described by Mr. Maxwell-Lefroy as follows :—In August we find the spotted boll-worms eating the top shoots of the cotton or feeding in the flower buds. They are short and thick, not more than two-thirds of an inch long when full grown. The colour is very variable, a mixture of white, green and black with orange spots. The predominant colour may be a dull greenish white, with black marks, or black with an irregular band of greenish white from head to tail. The pink boll-worm is of a white colour with bright pink spots, more slender than the other. The moth that comes from these caterpillars lays eggs on the first bolls and the attack begins. As the bolls develop more moths hatch out and both boll-worms become plentiful in the cotton. This goes on till the cotton ripens when probably the caterpillars hibernate. The spotted boll-worms hide away in the ground and there become pupæ, while the pink boll-worms curl up in the seed of the cotton and make a cocoon there. In the next March the spotted boll-worm comes out, lays its eggs on the brinjal or some other plant of the order *Malvaceæ* or in the old cotton plants standing in the fields and goes on breeding. When the rains break the pink boll-worm moth comes out from its cocoon. The bolls first affected should be pulled off and burnt. Seed should not be taken from infected plants. Another pest is the red cotton-bug. This is a small insect of a vivid red colour, which runs about the plant and clusters on leaves or bolls, sucking out the juice and rendering the seed useless and sometimes also the lint stained or bad.

Where either cotton or brinjal are plentiful, the insect becomes very abundant, increasing rapidly in warm weather. This does not do so much damage as the other pests and is frequently not recognised by the cultivator. It can be shaken off the plants into a basket and then drowned in a little kerosine oil and water. The cotton leaf-roller is a slender caterpillar of a pale greenish colour with a dark-coloured head, which lives upon the lower side of the cotton and brinjal plants, folding the leaf over and eating it. As it grows larger, it binds more and more folds together, forming a kind of nest of rolled leaf in which it feeds. The best remedy is to pick off the affected leaves as soon as they are seen, and if done early this is entirely effective. The dusky cotton-bug is another insect which sucks the green bolls and injures the lint and seed. It is found especially in bolls which open prematurely after they have been injured by the boll-worm. Large numbers of small brown insects run out of such bolls when they are handled and either fall to the ground, or, if they are full grown, fly away. These insects are also best shaken off the bolls into a tin containing kerosine oil and water. The least noticeable pest is the cotton leaf hopper, a tiny green fly, which lives on the cotton leaves and flies or leaps out when the plant is shaken. It usually attacks only weakly plants, sucking the sap of the leaves, which curl up, wither and fall off.

Seed and outturn.

109. The seed sown to an acre, Mr. Craddock states, varies from 2 to 4 *paseris* (8 to 16 lbs.), but if the larger amount is sown, the plants will require thinning. The outturn varies enormously with the nature of the soil and the character of the season, and owing to the distribution of yield over three or more pickings, it is difficult to make reliable crop experiments. The standard taken at settlement was 240 lbs. of seed cotton, yielding 72 lbs. of lint and 168 lbs. of seed. In 1905 the Commissioner of Settlements raised the estimate of the outturn to 300 lbs. of seed cotton and 99 lbs. of lint.

allowed to dry for four or five days. Women then cut off the heads, which are threshed in the ordinary manner with bullocks; or sometimes only the heads are cut off and the stalks left standing, so that they remain fresh and can be cut gradually as required. Each stalk usually bears only a single head, and if more than one is produced, they are of small size. Each head contains about 2 oz. of grain or a little more. The harvest lasts for about a month, from the middle of December to the middle of January, and threshing goes on till the middle or end of February.

Ringnī juār.

111. A distinct species of juār, Mr. Craddock states, is the *ringnī* or hot weather variety, which is sown after the rains and ripens at the end of March. It is sown thinly, about 5 or 6 lbs. to the acre, and produces extremely fine cobs. The grain is said to be rather bitter, but during the bad wheat seasons, this juār was increasingly grown as a mixture with or a substitute for it. Some cold weather showers are necessary for the welfare of the crop, but it is marvellous with what a small amount of moisture it makes shift. It is generally grown in the Umrer and Rāmtek tahsīls, where the rainfall is heavier than further west. Two varieties are distinguished in Rāmtek, and known as *sāru* and *ringnī*. *Sāru* is sown in October and ripens in March, while *ringnī* may be sown in November and harvested between March and May. The area sown with cold weather juār is between 20,000 and 30,000 acres or about 6 per cent. of the total crop.

Growth and pests.

112. Juār is a hardy plant, but its growth varies immensely with the quality of the land. The crop in the landowner's field near the village may be so high as to conceal a man on horseback, while a patch on an outlying stony ridge will hardly afford cover to a jackal. 'On good soil,' Mr. Craddock writes, 'when the crop is well drained, the cultivator can count on 'steady yields, if he takes due care with the ploughing and 'weeding of his land. A very large portion of the juār

'grown in Nāgpur however, is produced on sloping lands or 'in moist wheat fields, and so a dry season in the former, or 'excessive rain in the case of the latter, will have disastrous 'results on the grain yield of the crop. Weeding is neglect-'ed by idle or impoverished cultivators, and thus it is that 'the casual observer who has seen the crop in Berār will 'be struck by the poverty of its appearance in the country 'round Nāgpur.' Juār is a favourite food and the parched grain is very good eating. Farm-servants and their children are allowed by custom to go to the field and pluck enough to eat while the crop is standing, while the harvesters always receive some heads for their midday meal. The labour involved in the cultivation of juār is very great, and the crop is frequently given out on contract to labourers on the condition that they do all the work of cultivation and take half the produce less the seed-grain. On the other hand the crop is popular because there is practically no initial expenditure on seed-grain, the outturn is nearly as large as that of wheat and it does well in a dry-year. Juār is liable to smut when it is in flower and also to attacks from caterpillars and a green fly and to damage from a weed called *agia* (*Striga lutea*) in a very dry season. Its fibrous roots entwine round the roots of the plant and check its growth. The most common pest is the sugarcane borer (*Chilo simplex*), the larvæ of which eat the young leaves and bore into the stem, killing the plant. It is found in the caterpillar form, a slender caterpillar, not more than one inch in length of a dirty white colour, with dark spots and a black head. Smut is locally called *kānhi*. The ear turns black and when shaken a black powder drops out. This disease can be prevented by steeping the seed in sulphate of copper and some cultivators have adopted this remedy. A small white caterpillar which attacks the plant after it comes into ear is called *lendrā*. Excessive rain occurring soon after the seed is sown prevents it from germinating and rots the plants. Juār is usually grown mixed with one

of the pulses, arhar or mūng, in the proportion of one-seventh of the latter. From 8 to 12 lbs. of seed are sown to the acre and the standard outturn is 700 lbs as in Wardhā, this being the highest outturn in the Province. In a favourable season, Mr. Craddock states, a yield of 1000 to 1200 lbs. is considered a full outturn on land of good average quality. The value of the crop on one acre in 1905 was Rs. 15. The stalks, which are known as *karbī*, and the chaff (*kutār*) form a very valuable bye-product, supplying the fodder on which cattle depend for the greater part of the year. The value of the stalks may be another Rs. 10 or more, and the two in combination are worth not less than the standard wheat crop on the same area. The yield of stalks is not definitely known. Mr. Craddock takes it as 450 *pūlas* or bundles per acre and gives their value as Rs. 9. The people say, however, that there are two different sizes of bundle, according as it is made up and carried by a man or a woman. And of the larger kind they state that not more than 300 are obtained from an acre. The price has been known to go up in the hot weather to Rs. 80 a thousand, which would make the fodder much more valuable than the grain ; presumably however, this rate is for the larger bundles.

Wheat.

113. Wheat (*Triticum sativum*) is the third crop in importance. At the 30 years' settlement it covered nearly 374,000 acres, and at last settlement (1892-94) 320,000 acres or 25 per cent. of the cropped area. The harvests of the succeeding years have, however, been very poor and the area sown gradually decreased until in 1899-1900 it amounted only to 154,000 acres. Subsequent years have witnessed a considerable recovery, and in 1905-06 about 211,000 acres or 15 per cent. of the cropped area were sown with wheat.

The following varieties are grown in the Nāgpur District:—*Haurā*, *kātha*, *bansī* and *pissī*. Mr. Evans states : 'The first 'two varieties are by far the commonest, *pissī* and *bansī*

'being only occasionally grown. The first three varieties 'belong to the Hard or Macaroni wheats (*Triticum sativum* '*durum*) while *pissī* is of the same class as the common 'English wheats, *viz.*, (*T. sat. vulgare*). *Haurā* is the com- 'monest variety grown in the District and is a lax bearded 'wheat with shining white chaff and a large hard yellow 'grain. This wheat is said to do well only on the south 'side of the Sātpurā range and experiments seem to indicate 'that this is probably the case, for when grown in the 'Nerbudda valley it does not seem to thrive. Whether this 'is due to the colder climate or the heavier nature of the 'soil, however, has yet to be ascertained. It bears a close 'resemblance in outward appearance to one of the several 'types which occur in *jalālia*, the common hard yellow wheat 'of the Nerbudda Division, but it possesses several char- 'acteristics which, I think, show that it is really a distinct 'variety. Large quantities of this wheat are annually 'exported to Italy and Mediterranean ports under the trade 'name "Nāgpur yellow." The grain is very glutenous and 'possesses other qualifications which render it peculiarly 'suitable for the manufacture of macaroni, semolina and 'similar products. Samples of this wheat are valued for 'export purposes according to the percentage of hard yellow 'grain they contain, other points such as the amount of dirt 'and the condition of the grain being taken into considera- 'tion. An average sample of "Nāgpur yellow" will contain 'only about 48 per cent. of hard yellow grain as it is much 'mixed as a rule with soft and mottled yellow or hard red 'grains.

'*Kātha* is the other variety commonly grown in this 'District and possesses a hard red grain. Two types occur, 'one possessing dark brownish red shining chaff and the 'other, which is commonest on the Chānda border, a white 'chaff. It differs from the common types of *kathia* grown in 'the northern Districts, having narrower and looser heads 'and smaller harder grain of a brighter colour. This wheat

'does not fetch such a good price as *haurā* and is mostly 'grown for local consumption.

'*Pissī* resembles the ordinary Deshi *pissī* of the Ner-'budda valley, being white chaffed and bearded, but the 'heads are shorter and thinner and the grain smaller and 'considerably harder. In consequence as *pissī* wheats unlike '*haurā* are valued mainly according to the softness or 'starchiness of the grain, this variety is not profitable to 'grow on the Nāgpur plain where conditions are apparently 'not favourable for its best development.

'*Bansī*, the variety grown in Nāgpur, is apparently the 'same as the common hard yellow wheat of Berār which is 'variously known as *baxī* or *bakshī*. This wheat is much 'more resistent to the attacks of black rust (*Puccinia* '*graminis*) than the other three, but it is stated to compare 'unfavourably with *haurā*, both in yield and quality. It is a 'white rough chaffed wheat with black awns; its ear are 'short and narrow and the grain a hard clear yellow.'

Wheat is principally grown in the Umrer tahsīl, and also in the south of Rāmtek and in Nāgpur. A little *ringnī* juār is often mixed with the crop, in the proportion of about one in forty of seed. Very occasionally a border of linseed is grown to keep off cattle, or one or two lines of coriander may be mixed with the wheat. The soil is prepared with some care, being ploughed with the *bakhar* to clear it of the stumps immediately after the harvesting of the previous crop, again in the hot weather and once a fortnight during the rains if the weather permits. Before sowing the soil is levelled by dragging a *pathār* or plain log of wood over it. The *nāgar* or regular plough is not used unless the field is much overgrown with grass. Sowing usually begins about the 20th of October, many people commencing their sowings from the Dasahra festival. The seed is sown through the *tifan* or three-pronged sowing drill, but this is heavier and of larger size than the one used for sowing gram and juār, and it is drawn by three pairs of bullocks. The

best rain for wheat is in the first week of October, and if a good fall is received then, a full crop will be obtained even without cold weather rain. Neither wheat nor other cold weather crops are weeded, and after the seed is sown, little further labour is required till the harvest. When the crop has come into ear, a man is employed to watch every twenty to forty acres. The harvest begins about the middle of February. Wheat is very rarely manured, as the cultivator cannot afford to give this assistance to the whole of his land and he gets a better return from the application of manure to cotton. It may be sown in the same field for several years in succession without material loss, but it is commonly grown in rotation with cotton and juār. Wheat is very liable to rust if heavy rain in October or November is followed by close, cloudy weather in the cold season, and occasionally smut attacks a certain number of plants, though this disease has never seriously damaged wheat. Its chief danger in this District is a dry cold weather when the plants are liable to be destroyed by the ravages of white ants. The prevalence of high winds, when the plants are coming into ear, causes the grain to shrivel up. This disease is called *sop*, and also usually occurs in a dry season. Fifty-six pounds of seed are sown to the acre, and the standard outturn is 580 lbs. or more than ten-fold. The crop thus yields a considerably better return than in the northern Districts owing to the fact that little more than half as much seed is used, while the outturn is only some 50 lbs. smaller than in the Nerbudda valley. It is said that the seed is sown more thickly in good land and thinly in the poorer soils. The value of the standard crop of an acre of wheat in 1905 was nearly Rs. 19-8-0.

Linseed.

114. Linseed (*Linum usitatissimum*) became a popular crop during the decade ending 1890, the area under it being over 152,000 acres at the time of the last settlement. Since then it has to some extent been supplanted by til which is now also in good demand for export and is a safer crop to grow.

In spite of the high prices which have been obtained for linseed since 1891, its acreage had declined to 67,000 in 1905-06. It is usually sown in black soil and the method of cultivation resembles that of wheat, but the field need not be prepared so carefully. Two varieties are distinguished, one with a white seed and the white flower and the other with a copper-coloured seed and blue flower. The former is called locally *haurā* and the latter *kathiā*. They are grown mixed, but the white variety commands a better price in the market. In Nāgpur, however, Mr. Craddock states that it cannot be obtained pure in any quantity. The crop is sown in September and cut in February about a month before wheat. The plants are pulled up by the roots and taken to the threshing floor, where the pods are pounded out with a wooden mallet. Little expense is incurred in cultivation after the seed is sown, but the plants are very liable to injury from damp and cloudy weather in a cold season. During the wet years after 1892 they were destroyed by a virulent red rust. The colour of the rust which invades linseed is a brilliant scarlet and the fungoid parasite which causes it (*Melampsora lini*) is of quite a different genus to the rusts which attack wheat. The plants are also sometimes attacked by a small green insect at the time of flowering. When once the plants have successfully germinated, they require less moisture than wheat, and if good rain is received in September linseed will do well in a dry cold weather. The crop is exhausting to the soil and linseed should not be sown twice in succession. If a field is cropped continuously with it, a parasitic weed appears which resembles the *agia* plant (*Striga lutea*). Only 8 lbs. of seed are required to an acre, and the standard outturn is 300 lbs., the value of which in 1905 was Rs. 15-8-0.

Arhar.

115. Tūr or arhar[1] (*Cajanus indicus*), one of the autumn pulses, is grown almost wholly as a mixture with juār or cotton in

[1] The notice on tūr is principally taken from Mr. Craddock's Nagpur Settlement Report.

Nāgpur. The net acreage under it was 120,000 in 1902-03, this being the largest figure recorded. In 1905-06 it had declined to 115,000 acres. Some say that the mixture of arhar is of doubtful advantage to cotton, as the arhar plants grow quickly and overshadow their companions. But arhar furnishes the chief pulse food of the District and is a popular crop. It fertilises the soil both by fixing nitrogen and by the deposit of leaves, and the cultivators fully recognise this advantage, as is shown by the practice of increasing the proportion of tūr sown with cotton and juār in the poorer soils, while in rich ones the number of lines of tūr is greatly decreased or it is omitted altogether. This pulse, Mr. Craddock remarks, is one of the most successful crops produced in the District; it grows both on rich and poor soils, in the cotton, wheat and rice country, in wet and dry seasons. It is liable to be attacked by blight when in the flowering stage, though this disease seldom affects more than a proportion of the plants. Close, cloudy days in the early cold weather will produce caterpillars. Of these, there are several varieties. The tūr pod caterpillar which eats into the pod is of a greenish-brown colour similar to that of the pods, and is thus protected from observation. It develops into the tūr plume moth. The tūr pod fly is a small white maggot, found feeding inside the pod; the fly lays an egg in the pod, piercing the shell with her ovi-positor, an organ resembling the sting of a wasp, and leaving a single egg behind. The fly is a very small black insect, the wings large in comparison to the body. The tūr leaf caterpillar feeds upon the small upper leaves of the plant, webbing them together into a small compact mass, within which it lives. The webbed leaves are very conspicuous, so that the pest is at once recognisable. It does not do much harm, unless the top shoot is bitten through, when the growth of the plant is stunted. Tūr is also attacked by the gram caterpillar (*Chloidea obseleta*), a cosmopolitan pest, which infests an enormous variety of crops all over the world. It is a large green caterpillar

which sits on the outside of the pod and bites through it, eating the seeds.[1] In the northern Districts the crop may sometimes be killed by a single night's frost, but the weather is seldom cold enough in Nāgpur for it to be injured in this way.

The tūr grown in the Nāgpur plain and Berār is quite distinct from that of the Nerbudda valley and the northern Districts of the Provinces. The habit of growth is quite different, the Nāgpur tūr being a dwarf bushy plant seldom more than 4 feet high, the side branches being set on at right angles to the main stem, which is very short. The northern variety has a tall narrow columnar habit and is often 7 or 8 feet in height. The infloresences are also different in arrangement, being situated on small short shoots arranged at intervals along the side branches instead of all being grouped together at the ends of the branches as is the case in the northern type of tūr. The ordinary Nāgpur tūr really consists of a mixture of three varieties which have white, red and black seeds respectively. These types have been selected out and grown separately and have been found to breed pure. The white seeded kind is stated to be the most popular. Nāgpur tūr also differs from northern tūr in its period of ripening as it is ready for cutting in December, whereas the latter does not ripen until the end of March. This is apparently a permanent character, and does not depend on the climate, for Nāgpur tūr has now been grown at Hoshangābād for three years and still ripens at the same early date. Attempts have been made to introduce this tūr into the northern Districts as it escapes the January frosts which are often disastrous to the Deshī tūr, but they have been only partially successful, one of the chief reasons, I think, being firstly that the outturn of the local variety is much better than that of the Nāgpur tūr and secondly that the Nāgpur variety seems more liable, to injury from insect and fungoid attacks. The chief disease affect-

[1] Maxwell-Lefroy's Indian Insect Pest, pp. 141-144.

ing tūr in the Nāgpur plain is the tūr wilt disease which is said to be caused by a species of Nectar. This disease may occur at all stages of the plant's growth, but is most common when the pods have formed and the plant is nearing maturity. Plants affected first turn a paler green in colour and then rapidly wilt or droop and the whole plant dries up. Absence of proper rotation and unsuitability of soil are probably two of the chief causes of the occurrence of this disease. Tūr sown in land which is at all liable to water-logging in the rains is very liable to wilt.

Tūr cannot be sown with the *tifan*, as the seeds are too large, and the *nāri* or plough with a seed-tube behind it is used. When grown separately about 10 lbs. of seed are required for an acre and the outturn is 500 to 600 lbs. The stalks, called *turāti*, are soaked and dried in the sun, and are used to construct grain receptacles, made into brooms for sweeping, or plaited into matting for protecting the mud walls of the cultivator's house from the heavy downpour of the monsoon. The stalks are also useful as fuel, the charcoal obtained from them being prized for the manufacture of fireworks.

Til.

116. Til (*Sesamum indicum*) is a crop which was growing in favour at last settlement, when it covered 36,000 acres. This area increased to 76,000 acres in 1902-03, but has since largely declined to 24,000 in 1905-06. It is one of the crops which have had to make way for cotton. There are two varieties, *dhaurī* or white-seeded til, which is a rain crop, and *maghelī* or *boria*, red-seeded til, which is sown in August or September and ripens in the cold weather, being called *maghelī* because it is harvested in the month of Māgh. The white-seeded variety gives 49·9 and red-seeded 50·2 per cent. of oil. The former is sown in poor soils at the end of June or the beginning of July. It is of little importance in Nāgpur, the *maghelī* til being usually grown. This is a profitable crop, but requires favourable weather at sowing time. If there is heavy

rain at this time the seed cannot be sown, or may be washed out of the ground, and the plants are stunted. When August is very wet the cultivator will not sow til, but will keep his land for a spring crop. When the crop is well established it can do with very little rain. Thus in 1896-97 with no rain in September and October til gave more than a normal harvest. A pound and a half to two pounds of seed suffice to sow an acre and the standard outturn is 350 lbs.

Other pulses.

117. Of pulses gram (*Cicer arietinum*) covers about 14,000 acres, having declined from 37,000 acres at settlement. This pulse appears to be much less in favour in Nāgpur than in the Northern Districts. Tiurā or lākh (*Lathyrus sativus*) covers about 30,000 acres, but its area reached 56,000 in 1893-94. The other pulses, masūr or lentil, and peas are very little grown. All of these are sown with the aid of the *tifan*, the seed required for gram and masūr being about 40 lbs. per acre and for tiurā and peas, 50 to 60 lbs. The outturn varies between 360 and 720 lbs., and 540 may, Mr. Craddock states, be taken as a mean. The standard outturn for gram is 600 lbs. and for tiurā 400. This latter includes two varieties, of which the larger, known as lākh, is grown in the open wheat-fields, while the smaller, called *lākhori*, is sown as a second crop in the standing rice. Lākh supplies a useful food for cattle, but is not fitted for human diet except in small quantities, as it produces an incurable paralysis of the lower limbs. But the small variety, *lākhori*, is believed to be harmless. The difference in the propreties of the two grains is the more remarkable, as botanically the plants are indistinguishable from each other. These pulses often thrive both in dry and wet years when linseed and wheat suffer, but very dry and cold or cloudy weather, inducing the attacks of insects, sometimes prove fatal to them.[1] Mūng (*Phaseolus mungo*), urad (*Phaseolus radiatus*) and *moth* (*Phaseolus aconitifolius*) are autumn pulses which are sown mixed with juār. Urad is also grown as a second

[1] Nāgpur Settlement Report, para. 112.

crop after rice. *Popat* (*Dolichos lablab*) and *kulthā* (*Dolichos uniflorus*) are sown separately, the latter being produced on the very poorest soil.

Rice.[1]

118. Rice (*Oryza sativa*) covered 21,000 acres in 1905-06 as against 32,000 at settlement. The recent dry seasons have been unfavourable to this crop, but the construction of the Rāmtek reservoir will no doubt give it a great impetus. It is grown in the Deolapār tract of the Rāmtek tahsīl and the Amborā pargana of Umrer. About five-sixths of the rice grown is transplanted. Transplanting operations are carried on in the last part of July and in August, and if unduly delayed, either by the neglect of the cultivator or for want of sufficient water, the welfare of the crop is seriously endangered. If the plants have been left too long crowded together in the nursery they become unhealthy and do not thrive properly in their new surroundings, and there is the further risk that, their growth having been impeded, their coming to maturity will be delayed so long that the heat of October will dry them up before the ear can duly fill. The careful weeding of the rice crop is also most necessary for its welfare, or the plants will soon become choked by weeds; but the great essential in this crop is the water-supply, and the neglect of the cultivator to look after the small embankments with which the rice-plots are surrounded, is often fatal to the success of the crop if the autumn be dry. Broadcast rice is sown near the Bhandāra border in embanked fields where the after-crop of wheat is the main consideration, and elsewhere in the District in low-lying patches and pockets. In some of these fields quite phenomenally large yields are obtained, but on the other hand much of the crop is sown on poor land. The seed sown varies from 50 to 100 lbs. an acre and the standard outturn is 1200 lbs. The

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[1] This paragraph is taken from para. 111 of the Nāgpur Settlement Report.

chinnūr rice, the best quality of the Waingangā valley, is grown to some extent in Nāgpur.

San-hemp.

119. A minor crop of some importance is flax or *san*-hemp (*Crotalaria juncea*) which covers about 3000 acres. Cultivators of the higher castes will not grow this crop as it is considered to be unlucky or unclean. The objection probably arises from the dirty nature of the process of retting and separating the fibre. This also requires a considerable amount of dexterity for its rapid and successful accomplishment, and a novice would find the drawing out of the fibre somewhat difficult. The crop is, however, a paying one both for the yield of fibre and from its fertilising action on the soil. It is principally grown by the caste of Bhāmtas who also weave ropes and gunny-bags from the fibre. Tenants who will not grow hemp themselves frequently sublet their fields to a Bhāmta so as to get a crop of hemp taken off them. The colony of Bhāmtas in Makardhokrā, who work up their own produce into rope and sacking, was, Mr. Craddock stated, an extremely prosperous one. The crop is sown very thick and matures rapidly. The value of the fibre at settlement was Rs. 20, and of the seed, which is fed to cattle, Rs. 8 an acre. The price of the fibre has since increased.

Castor.

120. Castor (*Ricinus communis*) covers about 3000 acres. Castor seed gives 46·4 per cent. of oil. Many cultivators grow a small patch of it in a corner of one of their fields, and use the oil both as a medicine and as a lubricant for the wheels and axles of carts. Castor oil was formerly a common agent for lighting, but it has generally been supplanted by kerosine oil. It is sometimes grown as a regular crop in villages bordering on the jungle as wild animals will not eat it, the oil exercising the same disagreeable effects upon them as upon human beings. Castor is in general a healthy plant with few pests. Caterpillars are however fond of it and sometimes come in vast numbers, clearing the

plants of leaves in a very short time. Three species are represented, being totally distinct and easily recognised.

Tobacco.[1]

121. Tobacco (*Nicotiana tabacum*) occupies about 600 acres. Its cultivation is confined to patches of land adjacent to the village and to gardens at the backs of houses, which are naturally fertilised by drainage, while manure and sweepings can easily be deposited on them. The seed is sown in July in a well-manured nursery bed, the seedlings being transplanted in August. The crop receives several hoeings and dressings with fresh earth from time to time. In February the plants are cut down and the leaves spread out for a week to dry, after which they are made into heaps, damped again with a little water to keep them soft, and covered with grass or straw. After being cured in this manner for a few weeks they are made up into larger bundles and, so far as the cultivator is concerned, are ready for the market.[2] The value of the crop on an acre is about Rs. 60 and the net profit Rs. 20.

Sugarcane.

122. The cultivation of sugarcane was never important in the District and has now almost entirely ceased, the area under the cane in 1905-06 being less than 100 acres. It is all grown with well-water in Nāgpur, tank irrigation being unknown. The Kāchhis settled on the sewage farm near Nāgpur, with unlimited manure and cheap irrigation, were almost the only cultivators, Mr. Craddock wrote, who were able to produce sugarcane year after year with undiminished vigour and profit, and he had known the crop on one acre to sell for Rs. 300. It is believed however that even they have now given up its cultivation, being unable to compete against the Northern India crop, irrigated from tanks and canals.

Condiments.

123. Chillies[3] (*Capsicum frutescens*) are grown on about 6000 acres both as an irrigated and dry crop. The seed is sown in the

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[1] From para. 118 of the Nāgpur Settlement Report.

[2] Nāgpur Settlement Report, para. 118.

[3] Nāgpur Settlement Report, para. 117.

hot weather and during June or even later the young seedlings are carefully transplanted by hand. The crop ripens from January to March. The yield of green chillies from an acre is between 40 and 50 cwt. when irrigation is used and from a dry crop about a third less. When dried the weight shrinks by 75 per cent. The value of the crop on an acre is about Rs. 100 and the net profit half this amount. The selling price is Rs. 30 to Rs. 35 a *khandī* of 480 lbs. of dried produce. Chillies are grown alone in Umrer and in Kātol are commonly mixed with castor. In Umrer they are cultivated almost like a field crop, and most of the mālguzārs in south Umrer have some favourite patch in their home farm in which they take great pride. In Kātol the Raghvī Rajputs grow chillies a good deal, and their wives and children assist in their cultivation. Turmeric is extensively grown in the garden villages of the Kātol tahsīl, more especially in the neighbourhood of Mohpā and Pāradsinghā. Its area is about 200 acres. Twenty-eight cartloads of manure are required to an acre and on an average the crop has to be watered forty-eight times and well weeded three times. The roots have to be dug up and boiled in a cauldron before they are ready for market, while the selection of seed involves some trouble and expense at harvesting. Turmeric cultivation is therefore expensive and as the price is very variable it becomes a speculation. A garden of an acre in extent would produce about 800 lbs. valued by Mr. Craddock at Rs. 100, while the expenses, exclusive of rent, would be about Rs. 70. Onions, carrots, brinjals, garlic and yams are some of the principal vegetables grown.

Singhāra.

124. The following extracts are taken from Mr. Craddock's description of the cultivation of *singhāra* or water-nut and the betel-vine.

Singhāra is grown in the beds of tanks by Dhīmars or fishermen. In October-November *singhāra* fruit is sown in the bed of the tank, the portion selected having been free

from *singhāra* in the previous year. The nuts must necessarily be sown in shallow water, or even in mud, on ground which will subsequently be flooded during the fruit season. In three months' time the shoots which spring from the fruit have come to the surface of the water in the form of creepers. Cuttings from these creepers are then transplanted in another part of the tank which is cleared of weeds and other rubbish for the purpose. These, in their turn, spring up to the surface, and some of their branches are tied together and planted again in the mud of the tank by the side of the parent creepers. In this way the planting of the *singhāra* is carried out by the beginning of the rains. From the end of July the earliest planted creepers begin to yield the nut; the later ones follow in October, and the crop continues from both up to the middle of January. There is thus always *singhāra*, at some stage or other of growth, in a tank devoted to its cultivation. The crop is roughly computed to yield produce to the value of Rs. 90 to Rs. 120 per acre in the course of the year. The chief expense of *singhāra* cultivation consists in the clearing and transplanting operations, and the work of clearing the creepers of weeds and insect parasites is also troublesome, but the right of cultivating the nut is generally leased along with fishing rights by families or communities of Dhimars, and the labour is thus easily carried out by the lease-holders themselves. The cultivation of *singhāra* is said to foul the water of a tank so as to render it useless for irrigation purposes, and this is especially the case when the water is required for *pān* cultivation. No *pān* cultivators will allow the Dhīmars who fish in their tanks to grow *singhāra*. It was a matter for consideration whether the Dhīmar who held a lease of a tank, should not be considered as a cultivator and awarded tenant right. But no such claim had ever been put forward by the Dhīmars themselves and Mr. Craddock decided that such a grant would be contrary to immemorial custom and prejudicial to

of one *lhāsa* or bundle was Rs. 8 when picked in cold weather, Rs. 5 in the rains and Rs. 4 in the hot weather. The rate has no doubt increased since Mr. Craddock wrote.

Fruit trees. Mangoes.

127. Among fruit trees, mangoes cover about 500 acres, oranges 1200, guavas 300 and plantains 500. The following interesting notices of these fruit trees are reproduced from Mr. Craddock's Settlement Report on Nāgpur :—' It is a meritorious act to plant a mango tree on ' account of the fruit and shelter which it yields. The young ' plants will require watering for the first two hot weathers ' of their existence and fencing as a protection from cattle ' for a longer period. The ownership of a mango tree is ' hotly contested on grounds both of sentiment and profit. ' The local fruit is extremely unpalatable to Europeans, its ' substance being stringy with a strong flavour of turpentine. ' They are, however, largely eaten by the natives, both raw ' and in the form of pickles, and in a good mango season ' fruit sellers will offer some of their over-ripe stock at the ' absurd rate of two annas a hundred. Graft mangoes of ' esteemed varieties are found in the gardens of a few rich ' men. It is a common saying that mangoes will produce ' a crop only every other year. This is not strictly correct. ' A good crop is generally followed by a meagre one and ' occasionally the yield fails entirely. It would be more ' correct to say that a period of three years sees a good ' crop, a moderate crop and a poor crop. It is impossible ' to estimate closely what a mango tree should yield except ' by experience of what it does yield. Some trees seem to ' resemble the barren fig tree of the parable while others ' produce fruit worth Rs. 25. The mango flowers profusely ' in February and the fruit is ripe in April and May. High ' winds or hailstorms during the flowering period are the ' chief danger to the crop.'

128. 'Unlike the mango, the guava (*jām*) is cultivated 'only in gardens. It requires water 'and care when young and is the 'better for it afterwards, but when once established it will 'produce fruit without irrigation. Some of the finest guavas 'in the District are produced in the gardens near Tākalghāt. 'It grows only in good soil. The guava crop is at its 'height during the month of January.'

Guavas.

129. 'Plantain patches are scattered over the District, the trees being allowed to stand so long as they produce fruit. System- 'atic cultivation of the plantain is confined to the valley 'of the Sūr river, the tract near Kodāmendhi in Rāmtek 'tahsīl and the vicinity of Warodā on the Bhandāra 'road. Here the plants are propagated from shoots in 'a small patch, and every third year the trees are cut 'down and fresh shoots planted in an adjoining plot. 'The local plantain is not remarkable for its quality or 'flavour, and of late years its cultivation has declined in 'popularity.'

Plantains.

130. The Kanhān valley to the north of Kamptee abounds in grafted wild plum trees, which are grown both in plantations and along the borders of fields. The trees are grown from seed and cuttings are grafted on to them. The fruit is sent for sale to Nāgpur and exported in small quantities to Bombay and Calcutta, the price obtained being from 16 to 24 seers a rupee. Lemons, sweet limes and the pumelo (*Citrus decumana*) are all produced in the District, but never monopolise a garden.

Minor fruits.

131. 'The fruit, however, which requires the greatest outlay and labour on the part of the cultivator is the orange. Nāgpur 'oranges have an established reputation. The outer peel is 'easily removed and the inner skin is very thin, while for

Oranges[1].

[1] Nagpur Settlement Report, para. 123.

'juiciness and sweetness they cannot easily be matched. 'Thousands of baskets of oranges are sent away daily during 'the orange season to Bombay and other parts of India, 'and quite humble classes of cultivators will now start 'orange gardens, which were formerly the luxury of a few 'well-to-do landlords. A drawback to the industry is the 'time which must elapse before the full benefit of the 'outlay is reaped. For the first three years after the young 'cuttings are set in the ground no crop can be gathered, 'and there is large expenditure on manure and irrigation, 'which can only partly be recouped by sowing vegetables 'between the young plants. After that period it is no longer 'possible to grow vegetables in the orange gardens, but 'a small fruit crop is obtained; the trees, however, do not 'reach maturity till the expiry of seven years. Two crops 'are obtained in the year, in the early autumn and early hot 'weather.'

The following particulars about orange cultivation are taken from an article [1] by Rai Bahādur R. S. Joshi, Assistant Director of Agriculture. Tradition relates that the orange was first introduced into Nāgpur by the Bhonsla Rājā, Raghujī II, about the end of the 18th century from Aurangābād and Sītākol. There is only one variety, locally named *santrā*. All the plants are propagated by budding, growth from seed not being practised. The stock generally used is the sweet lime (*Mītha nimbū*), and less frequently the common citron (*samburī*). Buds of the orange grafted on the latter stock produce trees which yield fruits with a very loose skin, while those on the former stock have a more closely adhering jacket, showing that the stock has a distinct influence on the bud. The seeds are sown in baskets and subsequently twice transplanted into seed-beds and nursery plots, and in two years' time are ready for budding, which should be done between November and January when the sap

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[1] Published in the Agricultural Journal of India, January 1907.

is flowing upwards. In the following August the young trees are planted out into the permanent orchard. When the bud begins to grow freely the main shoot of the stock is severed. The trees are planted from 15 to 18 feet apart and from 100 to 200 go to an acre. The orange tree blossoms twice a year, once in June—July and again in December—January. The first flowering is called *Mrig-bahār*, because it occurs in the *nakshatra* or lunar mansion of *Mrig* or the deer. The second is called *Ambia-bahār*, because it occurs in February at the same time that the mango tree (*ām*) flowers. The crop ripens eight or nine months after the flowering in March and December respectively, and on occasion the fruits of the two crops may be seen on a tree at the same time, one freshly forming and the other ripe. But the good cultivator, Mr. Joshi says, does not allow the tree to bear two crops, and prevents this by exposing and cutting off the smaller roots before the time of flowering, so that the sap ceases to run, the leaves drop off, and the flowering is postponed. For details of the cultivation the reader must be referred to Mr. Joshi's article. With careful cultivation, weeding and irrigation, the young plants commence to bear fruit in the third year from the time of budding or the sixth from that of sowing seed. While the trees are immature, crops are sometimes grown in the plantation, but this practice is to be deprecated. In five years from the time of planting the trees will give a full crop, continuing for some eight or ten years, after which the yield gradually lessens. It is advisable at this stage to start a new plantation in the intervening spaces. The orange tree has an average height of 16 feet, with a girth of about 30 inches, while the circumference of the crown is about 40 feet. A good tree in full bearing may give about 1000 oranges. The bulk of the crop is consumed locally, but about 600 tons may be exported annually to Bombay and Calcutta. The fruit is carelessly packed in rough bamboo baskets. It is not exported to Europe at present. The average price at Nāgpur is about

Rs. 3 a hundred. The most serious disease of the Nāgpur orange tree is caused by fungus, which results first in a withering of the tips of the branches, the rot gradually extending down the branches until the whole tree is worthless. This disease has not yet been studied, and at present the only remedy which can be suggested is to cut out and burn the infected portions of the branches. The orange also suffers from the attacks of several insects, the most harmful of which is a borer beetle. The female generally lays its eggs on the branch or stem of the plant; as soon as the larva is hatched, it eats its way through the bark into the wood. This attack on the bark and sap of the tree causes the branch to wither and may kill the tree. Its attack can generally be discovered by the presence of saw dust at the mouth of the hole. The branch may be cut off or if the hole is in the stem, an attempt may be made to kill the insect by inserting a wire into it or syringing it with kerosine oil and water. Another caterpillar feeds on the leaves and there is also a minute pest which bores into the fruit. The best year for oranges was 1894 when nearly all field crops suffered from rust and blight. The drought of 1900 severely affected the plantations and many trees died. The area of the crop is about 1200 acres.

Agricultural implements.

132. The principal agricultural implement is the *bakhar* or surface-plough. The share of this is called *phās* and consists of an iron blade about 19 inches long and 2 to 3 inches wide fixed horizontally into a flat block of wood called *khod*. It is drawn by a pair of bullocks and is used both in preparing the fields for cultivation, breaking up clods and harrowing the surface, and sowing cotton, juār and arhar. Deep ploughing is done with a *nāgar* or ordinary plough. The blade of this is called *phāl* and consists of a pointed iron bar, about 3 feet long and an inch square, fixed into a heavy wooden body called *dātā*, beneath which it

projects about 6 inches pointing downwards and forwards as the plough is driven through the ground. The *nāgar* is used for the breaking up of new land or occasionally for the eradication of weeds. It is seldom employed in heavy black soil because of the labour involved to the bullocks, while if rain should hold off after land has been ploughed with the *nāgar* the soil will dry too rapidly and become unfit for sowing. No risk is involved if a field intended for spring crop is ploughed early in the rains, but the *nāgar* is seldom used, unless the field is much overgrown with grass. Experience gained on the Nāgpur Farm, so far as it goes, indicates that the best results are obtained by deep ploughing and harrowing in alternate years, but this experiment needs demonstration over a wider area before it can be decided whether the cultivator is right or wrong in his sparing resort to deep ploughing[1]. The *nāgar* requires two or three pairs of bullocks to draw it. The bodies of both ploughs are usually made of *babūl* wood (*Acacia arabica*). The *tifan* is a treble-drill rake by which three furrows are sown at once. The drills are fixed into wooden sockets or *dātās* projecting from the body of the plough, and point downwards and forwards like the share of the *nāgar*. Above each drill is fixed a bamboo tube through which the seed trickles, and the three tubes meet in a circular wooden basin at the top into which seed is fed. Two *tifans* are used, one for sowing the autumn and the other the spring crops. The latter or *rabi tifan* is heavier, as the ground is harder when the spring crops are sown and the drills must be forced into the soil. It has long pointed drills, each like the share of the *nāgar* but somewhat shorter. The autumn or *tusāri tifan* is a lighter implement with shorter and thinner spikes, as the ground is quite soft at this time and the seed need not penetrate so deeply. It is used for sowing juār and til. The *tifan* has been improved in recent years, the regular shares or spikes having

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1. Nāgpur Settlement Report, para. 93.

been substituted for *pothālās* or small iron cups which were formerly fixed on to the wooden sockets. These need not penetrate into the ground properly and the substitution of long shares has caused sowing to be performed more efficiently, though at the same time rendering it a more laborious process. The *tifan* used for sowing the spring crops must be drawn by two, three or four pairs of cattle. In the case of cotton the seed as already stated is sown through a hollow bamboo tube or *sartā* trailing behind the *bakhar*, the space between the lines of cotton being thus equivalent to the width of the share. Rice is the only crop sown broadcast. The *daurā* or hoe-plough is an implement like a small *bakhar* with a horizontal blade 6 inches long and 2 or 3 inches wide. This is used to weed the autumn crops as juār, cotton and tūr and to turn up the earth round their roots, first when the plants are a few inches above the ground and again a few weeks later. The bullocks are muzzled and tread between the lines of the crop, two *daurās* being often drawn by a single pair of animals. Delicate manipulation is required to guide the *daurā* between the lines of the crop without uprooting the plants. The space between the plants is subsequently weeded by hand. The *dhundia* is an implement like a *daurā*, but with a blade of about 8 or 9 inches long which is used when the plants have grown higher. But crops sown with the *tifan* cannot be weeded with the *dhundia*, as the lines are too close. No improvements have at present been made in the ordinary implements of agriculture, but an American fodder-shredding machine for cutting up the stalks of juār has been introduced by the Agricultural Department and many have been sold in the District. This machine has the effect of greatly increasing the nutritive value of the *karbī*, which is the staple food of cattle. Many proprietors in Nāgpur subscribe to the Provincial Agricultural Gazette.

133. The advantages of manure are to some extent appreciated by agriculturists, and they do what they can to afford a provision to the fields. The principal source of supply is from the dung of cattle, but this is also required for fuel. Since the expansion of cotton cultivation, however, many cultivators save the greater part of the cattle dung for manure both in the rainy and open season, and take their carts to the forests to buy supplies of fuel before and after the rains, bringing three or four cart-loads on each occasion. The dung is kept in surface heaps by which much of its value is lost, and now also not infrequently in pits either open or closed. The sweepings of the house are added to it, and the earth surrounding the sides of the pit is also dug up and placed on the fields. The manure is taken out and spread on the fields in the hot weather. It commands a selling price in Nāgpur, fetching from 8 annas to a rupee a cart-load. The bulk of the liquid manure is wasted, but a few cultivators dig up silt from the sides of tanks and spread it in the cattle stalls so as to retain the urine, afterwards removing it to the fields. The only other method of fertilisation which is practised is the penning of flocks of goats and sheep in the fields at night. The tenants hire these from the Dhangars or shepherds and they are kept on the fields for a fortnight to a month, one or two *khandīs* (of 400 lbs.) of juār or from Rs. 10 to Rs. 20 being paid for their use. The pens are frequently shifted during this period. A rate quoted in Nāgpur and Chhindwāra is R. 1 a day for the folding of a hundred sheep. It varies with the facilities afforded at hand for grazing and water. The manure available is usually devoted to the cotton crop, from which the largest return is obtained. Many cultivators keep goats for the sake of their manure. The Kāchhis who grow vegetables with manure from the sewage farm in Nāgpur, pay rents of as much as Rs. 75

Manure.

an acre for their land. One valuable source of supply is lost to the Indian cultivator owing to the fact that cotton seed is not crushed locally. The cotton-meal formed from the seeds after the oil is expressed is a valuable feeding stuff and manure, but this is lost to India as the seeds are exported whole. It is believed that foreign countries discriminate in their tariffs between the oil and the seeds in order to retain the pressing industry in their own hands.

Field embankments.

134. Embankment of land, Mr. Craddock[1] states, is not a general practice in the District, but the cheap labour available in the famine years gave an extraordinary impetus to embankment in the Kātol tahsīl, and particularly in certain villages of the Saoner group. 'The cultivators of these villages,' a mālguzār said, 'have begun to turn their fields into forts. The fields 'are surrounded by walls of stone, often picked off the surface, 'and the walls are coated inside with weeds and brushwood 'in such a way that water passes through in the rains, but 'not a particle of soil is allowed to escape. By this means 'erosion is prevented and the surface gradually becomes 'more even.'

[2] Weeds of Cultivation.

135. The principal weeds are *pādar* or *kāns* (*Saccharum spontaneum*), *nāgarmoti* (*Cyperus pertenuis*), *kundā* (*Ischoemum pilosum*), and *bauchi* (*Psoralea corylifolia*). When the first named gets a firm hold in a field, it is extremely difficult to eradicate it. Constant deep ploughing is the principal remedy. *Nagārmoti* is less difficult to deal with, but its intricate root-system and long-lived nodular roots make its final eradication difficult. *Kundā* is another troublesome weed which has to be finally

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1. Settlement Report, para. 99.

2. Reproduced from para. 101 of Mr. Craddock's Settlement Report with some additions by R. B. R. S. Joshi of the Agricultural Department.

uprooted, but it generally appears in patches and seldom spreads over a whole field. The *bauchi* is a noxious weed of very little use to man or beast. *Chido* (*Scirpus maritimus*) and *luni* (*Portulaca quadrifida*) are very troublesome weeds of the garden crops. *Chakravak*, also known as pig-feed, is a weed which grows profusely throughout the cold weather, many millions of seeds being clustered together in bunches on various peduncles. *Kainā* is a troublesome weed of the autumn crops. Though easy to uproot, its succulent leaves will retain their vitality even for fifteen days, and will take root again with a slight shower of rain. It is called Diwālya, as it dies a natural death at the Diwāli (November). *Rānbhindi* (wild *bhindi*), *Rānbatāna* (wild *batāna*), and wild jute and wild indigo are named from their resemblance to the cultivated crops of the same name. *Tore* and *sava* (*Panicum crus-Galli*) are weeds of rice, which in the early stages of growth are almost indistinguishable from the rice plant. Many of them are transplanted with rice and are uprooted when come into flower. The latter plant is also known as Deodhān or God's rice, as it grows wild.

The Nāgpur Agricultural Farm.

136. The following notice on the working of the Nāgpur Agricultural Farm has been contributed by Mr. G. Evans of the Agricultural Department :—

An old model farm existed at Nāgpur for many years, situated between Lendhrā village and the jail. This was abolished in 1883, and an experimental farm started on the present site between the Mahārāj Bāg gardens and the Ambājheri road. The farm was at first only 90 acres in extent, but in 1906 was increased by the addition of another 190 acres. The land consists of black cotton soil, of moderate depth, but much of the new land is uneven and in poor condition. An Agricultural College is situated in close proximity to the farm, and practical training is thus afforded to the students.

The experimental work which may be taken as the main business of the farm is carried on in connection with manures, rotation, tillage, the improvement of crops and the introduction of new processes and implements. Only a few features of it can here be mentioned. The advantages of growing a leguminous crop as a mixture such as arhar with cotton or gram with wheat have been conclusively demonstrated. Juār grown after cotton mixed with arhar does much better than after cotton alone; it does still better after *san*-hemp. It has been found that the Swedish plough which turns over the soil to a depth of 7 or 8 inches gives a much better wheat crop than the cultivator's *nāgar*; but even this gives better results than the *bakhar* or scarifier, though the latter is generally used in Nāgpur. Improvement of local crops by selection is being started and the cultivators eagerly take the selected seed. Hybridisation has lately been started, the local *jarī* and *banī* varieties of cotton being crossed with foreign varieties, with the object of obtaining the hardy constitution of the former combined with some of the good lint qualities of the latter. In the case of wheat the main object in view is to breed if possible a rust-resistant wheat. Experiments are continually made with new varieties of various crops from other parts of India and foreign countries, and when favourable the seed is distributed through the District Agricultural Associations for further trial. A good variety of juār from Saoner was discovered in this way and its use is now spreading elsewhere. Cottons have generally proved extremely disappointing and only one acclimatised American variety shows any promise. A variety of maize introduced from Jaunpur has yielded well and is now in fair demand. The cultivation of the ground nut is becoming more popular and better varieties have been introduced from the Madras Presidency. The method of preventing smut by steeping the seed in sulphate of copper has been introduced by the Agricultural Department and is now in common practice. Efforts have been made to

improve the conservation of manure, and what is known as the dry earth system seems to be the most effective. The floors of the cattle-stalls are covered with a thin layer of dry earth which is removed every few weeks, and in this way a considerable loss of the valuable volatile constituents from evaporation is prevented, as the various gases are absorbed in the dry earth. Between the years 1898-1906 a large number of improved implements have been introduced and sold through the agency of the Farms. Among these the following sales have been made to private persons, excluding those sent to other demonstration farms or Government officials:—Of fodder-cutters for juāri 112 have been disposed of, principally in the Nāgpur plain and Berār; in the Nerbudda valley 71 winnowers for wheat have been sold, and last season the demand for a new sheet iron winnower was so great that the Department could not comply with it; of Swedish and Turnwrest ploughs 82 have been sold, the latter being specially in demand for the eradication of *kāns* grass; while other implements disposed of include hand-threshers (7), corn shellers (19), sprayers (28), sugarcane mills (3) and bullock-gears (18).

Total value of crops.

137. The following statement is a rough estimate of the total value of the crops of the District, taking the standard outturn on the area cropped in 1905-06 according to the prices ruling in that year. The values are not accurate, because the wholesale rates are only available for the important staples, and for the others the retail rates have had to be taken. In order to make some approximation to accuracy however the retail rates have been reduced by 10 per cent. But it is probable that another 15 per cent. should be deducted in order to arrive at the amount actually received by the cultivators. The total value of the crops calculated by the above method comes to more than 2½ crores, while the valuable bye-products of juār-stalks and cotton seed are worth another 90 lakhs or a total of more than 3½ crores, as against two crores and 30 lakhs at

Mr. Craddock's Settlement, the increase being more than 50 per cent :—

Name of crop.	Area, 1905-06.	Outturn per acre.	Gross outturn.	Value rate per rupee in 1905-06.	Gross value.	Value per acre.
	Thousands of acres.	lbs.	Thousands of lbs.	lbs.	Thousands of rupees.	
					Rs.	Rs. a.
Wheat ...	211	580	122,662	30	40,89	19 8
Juār ...	423	600	253,873	40	63,47	15 0
Cotton ...	476	99 *	47,141	4·4	1,07,14	22 8
Tūr ...	115	500	57,402	26	22,08	19 0
Linseed ...	67	280	18,754	18	10,42	15 8
Lākh ...	28	400	11,208	24	4,67	16 8
Gram ...	14	600	8,176	34	2,40	17 8
Rice ...	21	731 *	15,034	24	6,26	30 8
Til ...	24	350	8,287	14	5,92	25 0
Garden crops including oranges ...	5	...	...	Rs. 100 per acre.	4,61	100 0
Other crops...	34	...	...	Rs. 10 per acre	2,43	10 0
Total ...	1,417	...	542,537	...	2,70,29	...
Cotton seed ...	476	201	95,710	36 lbs.	26,59	5 8
Juār stalks ...	423	275 pullas	116,358 pullas	Rs. 55 per 1,000 pullas	64,00	15 0
Total ...	...	...	...	...	3,60,87	...

* Cleaned produce.

IRRIGATION.

138. Since 1892 the area irrigated has varied between 10,000 and 25,000 acres. The returns show about 1100 irrigation tanks and nearly 8000 wells, of which about 1500 are durable and the remainder temporary. The number of wells appears to have almost doubled in the last fifteen years, while that of tanks shows little variation. A *kachchā* or unlined well may be made at a cost of about Rs. 30, the sides being shored up with rough unhewn stones, but a masonry well will need Rs. 250, and in unfavourable circumstances Rs. 500. The depth of the well, the nature of the

Wells and tanks.

rock and the thickness of the walls are the determining factors. The usual method of irrigation is by the *mot* or leather bag and a pair of bullocks. Two uprights on the parapet of the well carry a cross-bar and pulley, over which a thick rope passes, one end of it being attached to the yoke of the bullocks, and the other end to the bottom of the leather bag. Another rope is fastened to the mouth of the bag and passing over a wooden roller placed on the parapet is also fixed to the yoke of the bullocks. The bullocks are then made to go down the steep inclined path or *dhao* prepared for the purpose, and in doing so they pull the bag up to the surface. As it reaches the parapet, the lower rope draws the nozzle over the roller and the upper rope tips up the bottom of the bag, thus causing the water to flow out into the small masonry cistern (*tākā*) constructed at the base of the parapet, from which it is carried by channels into the land to be irrigated. The bullocks are then trained to go backwards up the path; the strain on the rope is relaxed; and the *mot* drops back into the well by its own weight. The cost of the bag is about Rs. 10 and of the accessories Rs. 5; but the bag needs replacing every two years.

Tank irrigation is effected either by channels (*salang*), or by direct cut (*murkhand*), the latter being of course the most reliable supply. Irrigation by banking up or diverting a stream is occasionally practised on a small scale.

The Rāmtek Reservoir.

139. Until within a very recent period there have been no Government irrigation works in the District, but a very important scheme is now in course of completion. This is the construction of a large storage reservoir at Rāmtek by damming the course of the Sūr river, where it passes through a break in the low hills of the Ambāgarh range near that town. The situation is eminently favourable and the project was first investigated about 1870. Its construction was sanctioned in 1906 and work on the tank has been begun. Only a short dam of 230 yards is needed to

stop the course of the river between the hills, and there will be a flank embankment on the east side about 3000 yards long with a waste weir at the extremity. The direction of the flank embankment will be nearly north, the hills with the main embankment running roughly from west to east. The waste channel will be at its northern extremity, and will consist of a simple channel with a masonry bar across its head. It will discharge into a suitable stream, which flows into the Sūr river some distance below the site of the works. The height of the main dam will be 83 feet. It was at first intended that this should be a masonry dam, but the foundations being found unsuitable, an earthen one has been substituted. The catchment area of the reservoir will be 82 and its water spread at full tank level 9 square miles. The main distributary will extend from the headworks to Bhandāra. There are several branch distributaries, the chief ones are the Nagardhan, Indorā and Virsi Minor's. The head-sluice is in the main dam. The total cost of the scheme is now estimated at Rs. 17,15,773 including direct and indirect charges. It will afford complete protection to 40,000 acres, but if worked fully every year and on completely protective lines, it will irrigate a much larger area. The land required for the reservoir is estimated to cost about a lakh and a half. Six villages will be submerged in the water spread. Construction was begun in 1906, but has been somewhat delayed by the necessity for the substitution of an earthen for a masonry dam. It is however anticipated that the main dam will be closed after the rains of 1908 and irrigation will be possible for the scheme in 1909.

CATTLE.

Breeds.

140. Cattle of the Gaolao breed, the best in the Province, are extensively used in Nāgpur, especially in the cotton tracts, but they are usually imported from Arvī and Khamārpāni in Sausar, and few are raised in the District. Animals of this breed are usually white in colour with shortish curved

horns, prominently convex foreheads, short ears and large and soft eyes. They have full chests and fairly developed forearms. Their tails are long, thin and tapering. They are well built and specially adapted for fast work. The other points of this breed, as mentioned by Mr. R. S. Joshi, Assistant Director of Agriculture, are tapering nostrils and black muzzles, a short neck, a broad and prominent chest, black hoofs, fairly short legs in proportion to the body, and back curving gradually over the quarters and slightly hollow behind the hump. The Gaolao cattle are not very hardy and require some care and attention in breeding. Their price varies from Rs. 100 to Rs. 300 a pair. The best trotting bullocks command even higher prices and harnessed to a light cart weighing 90 or 100 lbs., a pair of them will do 50 miles under the 12 hours, while for short distances they can trot 8 miles an hour. The people prefer white cattle, and white bulls are usually preserved for breeding purposes. The cattle raised in the District are known as Nāgpurī. The principal local breeding-ground is the north of the Rāmtek tahsīl. These animals are also usually of white colour and have horns of medium size and flat foreheads. They are more leggy than the Gaolao cattle and may be of different colours. They are much used for road work in tongas or carts. They are somewhat lacking in spirit and staying power, and the cows of this breed are not good milkers. The price of a pair of bullocks is from Rs. 50 to Rs. 100. A third class of cattle are called Gondī. These are inferior, small and badly shaped, with thin and short horns and are probably simply the progeny of the promiscuous interbreeding of badly nourished animals. They are generally used in the rice tracts. Bullocks of the Berār breed are imported from Wūn and other places, and are considered to be stronger than the Gaolao animals. They are generally red in colour. Cattle are also obtained from Māhur in Hyderābād, these animals being called Māhurpattī while others bred in Chānda are called Telangpattī. The

Māhur cattle are red, black and speckled, and are very strong, costing from Rs. 200 to Rs. 400 a pair for the best animals. From Chānda they are usually imported into Umrer, from Yeotmāl into Nāgpur, and from Chhindwāra and Arvī into Kātol.

Prices and working life.

141. In 1890-95 the price of a fairly good pair of bullocks was given by Mr. Craddock as Rs. 80 to Rs. 100[1], while Rs. 200 was sometimes paid for a good pair. In 1871 Mr. Low stated in the *Gazetteer* that the price of a good pair of plough bullocks ranged from Rs. 70 to Rs. 150, and of trotting bullocks from Rs. 200 to Rs. 250. Mr. Craddock considered that the average prices had advanced about 40 per cent. during the intervening period. There has probably been some further increase since the famines, and it is now stated that a first-rate pair for the plough cannot be had in Kātol for Rs. 150. But those of the small cultivators do not cost more than Rs. 75 a pair. As to the working life of bullocks the following remarks made by him may be quoted. 'The 'bullock is trained to the plough in its fourth year and is 'put to hard work first in its fifth. A pair of bullocks are 'generally considered as being up to full work for six years 'or until they are twelve years old. After this their strength 'is on the decline. They are then sold to a poorer man at a 'much reduced price, and after doing work for another year 'or two, are again sold for a nominal sum to a still poorer 'cultivator, in whose possession they die unless they fall into 'the hands of the butcher. I remember one village in 'Umrer with Gond cultivators, in which the bullocks used 'were worn-out animals, and had cost only Rs. 12 to Rs. 15 'a pair. Of the bullocks in work in the District it is gene'rally estimated that about a fourth are bred in Nāgpur, and 'three-fourths imported from Berār or Arvī.' The working life of a pair is generally estimated at twelve years if they are well-fed, and as they are castrated at about three years

[1] Nāgpur Settlement Report, para. 104.

old, this would bring their working life to 15 years of age. A plough of land of 4 bullocks is considered to be equivalent to 32 acres of black soil or 40 acres of gravel or *bardī* soil, the work of dragging the plough being lighter in the latter. In 1905-06, there were 235,000 bulls and bullocks in the District, giving a pair to every 12 acres in cultivation.

Cows.

142. Cows are kept for breeding and for the manure which they afford. Cow's milk is not usually made into *ghī* or melted butter, and most cows are not milked at all, as the owners consider that the calves will be weakened if deprived of the milk. The best cows of the Gaolao breed will give 14 lbs. of milk if properly fed and looked after, and a few of them are sold to Europeans as milch cows. Cows of the Nāgpurī breed give about 6 lbs. of milk. A cow gives a calf as a rule once every eighteen months, and seven or eight calves are obtained from one cow on an average. The price of a cow varies from Rs. 15 to Rs. 50. In 1905-06, the number of cows was 153,000, giving 66 to a village and less than one to a household. Mr. Craddock remarks as follows on the general uses of cattle.[1] 'Cows are not kept for milking purposes, except 'in the towns, and the reason advanced for the herds of ill-'fed, undersized cattle which one sees in the villages is the 'manure which they yield. But, since their feeding is of the 'poorest, and the manure is mostly wasted in the jungle and 'grazing-grounds, it is certain that the return from these 'cattle is not worth even the fodder which they consume. 'In the jungle localities, notably in the Dongartāl tract, the 'Gaolis keep buffaloes and breed cattle on a small scale, 'making their profits from the sale of *ghī*; and there is 'always a sprinkling of cultivators in most villages, who 'keep a few buffaloes for this purpose. No serious attempt 'is made by the people to improve the breed of cattle, but 'occasionally a bull is imported by some enterprising 'mālguzār. The Cow Protection Society has acquired a

[1] Settlement Report, para. 140.

'village, with extensive grazing-grounds, a few miles 'south of Nāgpur, but the place is rather the refuge for 'moribund animals snatched from the butchers than a 'breeding-ground.'

Food given to cattle.

143. Cattle are fed on *karbī* or juār-stalks, cotton-seed, straw and arhar. Oil-cake is given rarely, as it is an expensive food. The staple food is *karbī*, which is fed to them for 6 or 8 months of the year. It is stated that one acre will yield 200 to 350 bundles of *karbī*, according as the crop is sown, thin or thick. But after the crops are cut the cattle are turned into the fields and with the grazing they obtain from the waste ground, 2000 bundles will last them for a year. About 6 acres of land will therefore afford fodder for a pair of bullocks. The chaff of juār (*kutār*) is also a valuable fodder. In the hot weather cattle receive cotton-seed, between 5 and 8 lbs. being given daily per yoke. This food is considered to be bad for them in the rains and is not given then. The practice of making cotton-seed cake does not usually obtain, and the seeds are given dry and uncrushed. Oil cake of tilli and linseed is fed to cattle round Nāgpur. Mr. Craddock remarks on the subject of food as follows :—'In the cotton-juār country 'the bullocks are better fed and have lighter work, but 'in the wheat and rice country and especially in the latter, 'they are poorer both in size and strength and are very 'hard-worked. The good cultivator gives his bullocks a 'daily feed of grain for four to six months in each year 'during the season of hardest work—April to November. 'In the cotton-juār country the bullocks have cotton-seed 'and tūr, gram or tiurā (*Lathyrus sativus*) and in the rice 'country *lākhori* or the small tiurā and *popat* beans. The 'garden bullock is usually the best fed, while the needy 'cultivators' animals have a very wretched existence. They 'have already passed the prime of their strength and are 'over-worked and under-fed. The contrast between the

'bullocks of a well-to-do mālguzār and those of a poor 'tenant is very marked.' Plough bullocks are not usually sent to any distance for grazing, and if there is no forest in the village are left to pick up what they can along the banks of fields. Other animals are sent to the Government Forest of the District and to Berār. In the Kātol tahsīl there is scarcely any grazing, but in Umrer and the north of Rāmtek it is plentiful. Only a few proprietors keep land under grass, as the return, except in the immediate vicinity of Nāgpur, is said to be very small. Salt is given to all kinds of cattle two or three times a year in July, August and October, in doses of from 10 to 20 tolās. Cows and she-buffaloes also get a little salt at the Diwāli festival. Gaolis also give milch cows and buffalo cows a pinch of salt daily when they are milked, while at the commencement of the rains cultivating cattle get a handful for seven days consecutively.

Buffaloes.

144. Buffaloes are bred in the District and the cows are valued for their milk from which *ghī* is made, and also for the manure which they afford. The milk and butter are sold in towns, but Hindus do not care about butter and always turn it into *ghī* by boiling it. The price of a she-buffalo varies from Rs. 30 to Rs. 100 according to the daily supply of milk which it gives, the usual rate being Rs. 10 for every seer (of 2 lbs.) or somewhat more. No value is set on the male calves and they are frequently allowed to die from neglect, or they are disposed of to the Sarodis, a wandering caste of quasi-religious mendicants, who take them to the rice Districts of Bhandāra and Bālāghāt and sell them there. In 1905-06 there were 36,000 cow and 6000 male buffaloes.

Ponies and small stock.

145. Ponies are not bred in the District to any extent worth mentioning, nor is the taste for riding prevalent among the landowning classes. The number of ponies in 1903-04 was 4500 or about two to a village. Sheep and goats are kept by the Dhangars or shepherd caste. The number

of goats in the District is very large, amounting to 124,000 and being the highest figure in the Province. Many cultivators have also begun to keep flocks of goats for the sake of the manure which they afford. The Dhangars keep goats for the sale of the meat, and also make *ghī* from their milk and sell it to the Baniās for export. There is no demand for it locally, the people refusing to consume goat's milk either in its natural state or when made into *ghī*. The Dhangars also let out their herds for being penned on the fields. A sum of Rs. 2 for 10 *khandīs* or 200 goats per night is an average rate, but it varies according to the facilities afforded to the Dhangars by the proximity or absence of water and fodder. Goats sell for two to seven rupees apiece according to their size. Sheep are less expensive, as their flesh is not so much liked as that of goats. The flesh of ewes is also eaten, but not to a very great extent. The number of sheep is 44,000 and this is also fairly high as compared with other Districts. Sheep are kept for the sake of their wool, from which country blankets are made. Donkeys are kept only by Kumhārs and by Dhīmars who in Wardhā are known as Bhois. Many of these Bhois make a profession of carrying goods on donkeys for hire. They also keep pigs and generally occupy a lower position than the Dhīmars of other Districts, though Kunbīs will take water from them.

Diseases.

146. The local names of the ordinary cattle diseases are *phānsi*, *sarphānsi*, and *eklangia* for authroised diseases, *khuri* for foot-and-mouth disease, *mātā* for rinderpest and *phopsā* for pleuro-pneumonia. *Phānsi* is what is called malignant sore throat; the throat becomes much swollen. The local remedy is to brand the throat and sometimes to cut the ears so as to let blood flow from them. When the lungs are affected, the disease is called *sarphānsi*, and this is said to be much more fatal. *Eklangia* is apparently the local name for blackquarter, an anthracoid disease in which one of the fore or hindquarters becomes affected and swells. This disease is

rare and is said to appear at intervals of some years. Rinderpest is said usually to be prevalent in the hot weather, but accounts, as to the time of its appearance, vary so much that little reliance is to be placed on them. It is generally supposed to be less common in the Nāgpur country than elsewhere. The animal is given *ghī* and buttermilk to drink to cool the liver, but no medicine is administered. Segregation is rarely practised owing to the difficulties which it presents, and the utmost that some mālguzārs do is to prevent the cattle of their village from mixing with the herds of a neighbouring village where the disease exists. Recently inoculation for rinderpest has had successful results in some villages. *Phopsā* or pleuro-pneumonia is not very common and is not locally considered to be contagious, though as a matter of fact it is so. But cases of inflammation and congestion of the lungs are often mistaken for the contagious disease. Real pleuro-pneumonia is usually fatal and medicine has little effect on it. *Khurī* or foot-and-mouth disease is the most common but is not usually fatal. Ulcers appear on the lips, and blood and pus ooze from the hoofs. If the hoofs split, the animal becomes lame for life. *Ghī* or butter and alum are applied to the tongue, and *dikāmāli* or the resin of *Gardenia lucida* boiled in linseed or tilli oil to the feet, or a mixture of powdered tobacco and lime. Or the animal is made to stand in mud or the hot refuse of mahuā. The disease is most virulent in the cold weather. Two veterinary dispensaries have been established at Nāgpur and Umrer.

Cattle-farm and weekly markets.

147. A cattle-breeding farm for the production of bulls to be used in improving the agricultural stock of the southern Districts was established at Telinkherī in 1902, being stocked with a herd of 34 cows, 12 calves and a bull. The cows and calves were all purchased from the famous Jaitpur herd of Gaolao cattle, which is considered to be the best breed in the Nāgpur country. The young bulls are given on loan to landlords who take an interest in cattle-

breeding, and six Gaolao bulls have already been given out in this way. The herd undergoes a careful inspection annually and all the young bulls and heifers which are not considered true to type or are unshapely or otherwise undesirable for breeding purposes are discarded, the heifers being sold and the young bulls castrated and kept for farm work. To prevent in-and-in breeding the old bulls are replaced from time to time by the best young bulls of the herd. The principal weekly cattle-markets are held at Saoner in the Nāgpur tahsīl, Umrer in the Umrer tahsīl, Rāmtek, Khāpa and Kodāmendhi in the Rāmtek tahsīl, and Mowār in the Kātol tahsīl. The average number of head sold annually at the Khāpa market during the three years 1901-04 was 634 and at Kodāmendhi 366. At the other markets the sales are very small. Registration fees varying from one to three pies in the rupee are levied on the sales in most of the markets.

CHAPTER V.

LOANS, PRICES, WAGES, MANUFACTURES, TRADE AND COMMUNICATIONS.

LOANS.

Government loans.

148. From 1874 up to 1905-06 a sum of about 2½ lakhs had been advanced under the Land Improvement Loans Act, but of this about 1½ lakhs were given out in the famine of 1899-00 and Rs. 40,000 in the famine of 1896-97. Previous to this latter date the amounts advanced were insignificant, while in the five years since 1901 they have averaged about Rs. 5000 annually. Improvements are mainly in the nature of the construction of embankments on sloping land, the sinking of wells and the building of tanks in the rice tracts. During the 15 years ending 1904 a total of 216 *sanads* or certificates were issued for works of improvement. Of these 98 were given for the construction of wells, 15 for tanks and 103 for field embankments, and the total may be said to constitute a very good record for a period of 15 years. Their total cost is stated to be Rs. 92,000, but this is probably an under-estimate, including only actual outlay, while nothing is shown for supervision or for work done by the proprietors' own servants. And there were no doubt other improvements for which certificates were not given, such as small works costing less than Rs. 50 and maintenance and repairs. During the 30 years' settlement, the sums expended on improvements for the first fifteen years, 1864 to 1880, came to Rs. 1·18 lakhs and for the second fifteen years to Rs. 2·21 lakhs, thus showing a substantial advance during the later period of the settlement.[1] Mr. Craddock remarks on this subject: 'It is commonly said 'that the shortening of the term of settlement must operate 'to reduce improvements. I do not share this view. I

[1] Settlement Report 1899, para. 103.

'believe that stability of tenure is the essential feature, and, 'for the rest, the enterprise of the individual is the determining factor. I do not see any improvements in villages 'held on a perpetual *muāfi*, or in villages purchased free 'of revenue, which cannot be matched or surpassed in 'mālguzāri villages. Indeed the improvements in the former are singularly few. Ensure a man possession, protect 'him from arbitrary, as distinguished from reasonable 'enhancement of his rent, and whether he improves his 'land or not will be determined solely by his personal 'characteristics and the custom of his neighbourhood. 'Moreover by granting *sanads* for improvements, and 'exempting them from assessment, we are removing the 'so-called obstacle to the expenditure of capital, which the 'opponents of short-term settlements so loudly urge.'

Advances under the Agriculturists' Loans Act are also comparatively small in normal seasons. A total of Rs. 1·79 lakhs has been advanced between 1888 and 1905, the bulk of which was given out during the bad years between 1896 and 1902. During the last four years to 1906, the amount lent has only been about Rs. 3000 annually. Practically the whole sum due for repayment under both kinds of loans has been recovered as it fell due and only insignificant amounts have been remitted.

Rates of interest on private loans.

149. Sir Richard Jenkins has left on record the rates of interest prevailing in 1827. At that time the general rate for money lent on common security was 3 to 4 per cent. per month, and never less than 2 per cent. on the best security or on the pledge of valuables equivalent to the sum advanced. The rate of interest has therefore fallen very greatly at the present time. It is now 12 per cent. per annum for landowners of good position and from 12 to 24 per cent. for tenants. On grain loans the rate is usually 25 per cent. for the spring crops and 25 to 50 per cent. for the autumn crops and for oilseeds. Loans for seed-grain are

called *bīj* and those for food while the crops are in the ground *porgā*. As a general rule 2 per cent. is deducted from the principal sum for measuring fees which the borrower has to pay. Artisans and mechanics of the lower classes have usually to borrow on more unfavourable terms, because of the risk that they will abscond, and are charged three or four per cent. a month. Small money-changers are known as *Khurdias*, and either trade for themselves or are employed by bankers and get a percentage on their transactions. They give copper and cowries for rupees and take every advantage of inexperienced or unwary clients. Weavers and other handicraftsmen who need advances have commonly to apply to them and are charged exorbitant rates of interest. Business loans are made on *hundīs* or notes-of-hand, usually payable at 61 days. The minimum rate for these is 6 per cent. per annum. In Nāgpur the bills are cashed by brokers who take commission at the rate of half an anna per 100 rupees. *Hundīs* or bills of exchange are issued on Calcutta and Bombay and the rate of discount varies from 5 annas to two rupees per hundred in the busy season, while in the rains they often fetch a premium. Five annas is the bullion rate for Bombay and when the discount rate exceeds this, it is cheaper to import cash. Very large sums of fifty thousand rupees or more will be brought by train in the custody of two servants of a native firm, while sums of some thousands of rupees will be entrusted to a single servant.

Bankers and money-lenders.

150. Nāgpur has a branch of the Bank of Bengal. The leading native firms are Rājā Seth Gokul Dās of Jubbulpore and Diwān Bahādur Seth Kastūrchand of Kamptee. The former has large estates in various parts of the Province, but the latter does not acquire landed property and confines his business usually to cashing bills and making advances to merchants. His firm does the work of the treasury for Government in several Districts. The

principal bankers of the agricultural classes are the firms of Gopāl Rao Būti and the late Vināyak Jāgeshwar Būti, who are Charak Brāhmans; Gangādhar Mādho Chitnavīs, a Parbhū; Ganpāt Rao Ghatāte and Dhundirāj Atmārām, Marāthā Brāhmans, the latter being of Pārseonī; Motilāl Agyārām; Sām Rao Deshmukh of Mohpā and Nārāyan Srīdhar Naik of Umrer. Hīralāl Johri, an Oswāl Baniā, is a large jeweller; Jamnā Dās Potdār, Agarwāl Baniā, is the broker of the Empress Mills; and Gulāb Sao Lād Baniā is the largest cloth-merchant in Nāgpur.

Castes of proprietors.

151. When proprietary rights were awarded to the farmers and patels of villages at the settlement of 1863, the body of recipients was of a somewhat heterogeneous constitution. Priests and officials or court favourites had been granted villages as rewards for petty services or obsequiousness, as the case might be. Dependants or relations of the ruling family, legitimate or illegitimate, husbands of Bhonsla princesses, members of the Marāthā nobility and others of less note had similarly acquired possession. Since the 30 years' settlement the constitution of the proprietary body has altered to a surprisingly small degree. The returns now show 2280 villages as against 2203 at last settlement and 2166 at the 30 years' settlement. Brāhmans now own 741 villages or nearly a third of the total number, Kunbis 437, Marāthās 259, Muhammadans 130, Baniās 112, Rājputs 103 and Parbhūs, Gosains, Kirārs, Kālārs and Telis between 50 and 70 each. Of the villages owned by Marāthās, 143 belong to the Bhonsla family and their relatives; of those held by Muhammadans 20 are included in the Sansthānik estate of the Deogarh Rāj-Gond Rajās who have embraced Islām; while of the 67 villages belonging to Parbhūs Mr. Gangādhar Rao Chitnavīs has 50. Since the 30 years' settlement Brāhmans have increased their property by 21 villages, Baniās by 33, Telis by 24, Kalārs by 33, Parbhūs by 21 and Kirārs by 17.

The Marāthās have lost 24 villages, the Rājputs 27, and the Muhammadans 9, while Kunbīs have exactly one more village now than then. The moneylending classes, who may be taken to include Baniās, Kalārs and Parbhūs, have thus gained a small proportion of villages, but nothing very substantial. The results appear to indicate that the proprietary class are in a stronger position in Nāgpur than in most other Districts. A total of nearly 500 villages including shares are shown to have changed hands between 1894 and 1906, but the transfers must in many cases have been made to members of the agricultural castes. The land revenue assessed on this property was Rs. 1·73 lakhs or 16 per cent. of that of the District, and the consideration for the property amounted to ten times the land revenue. During the last four years the consideration for landed property sold privately has been equivalent to a multiple of 20 times the land revenue, while for that sold by order of the Court it has varied between 16 and 41 times. According to this criterion the prices now realised are much better than in the years just before Mr. Craddock's settlement, and the small enhancement of revenue then imposed has had no effect whatever in depreciating the value of land.

Character of the proprietors.

152. Mr. Craddock describes the proprietary class as follows [1]:— The landlords are an exceedingly heterogeneous body, both in class and means. Some of them are wealthy moneylenders, while among the co-sharers of a large proprietary body may be found men who watch their own crops. Outside the purely agricultural castes there are few proprietors who reside on their own estates unless these happen to include one of the large market villages. In Nāgpur and Umrer tahsīls the mālguzārs are generally Brāhmans and Kunbīs and they are well-to-do or rich. The majority of the Brāhmans belong to the indif-

[1] This notice is compiled from remarks in the Nāgpur Settlement Report and Annexures.

ferent type. They seldom or never visit their villages and spend nothing in them, but at the same time they do not eject tenants nor enhance rents. The Kunbīs look rather to the farming profits to be derived from a careful working of their demesne lands than to the surplus of the rental. Being resident in their villages they display more sympathy with their tenantry than the absentee landlords, and are more subject to the influences of public opinion and less inclined to break away from the traditions of the past. The Mārwāri proprietors are not model landlords, though by no means so bad as many of their species. The large Mārwāri trader, who engages in commerce and banking, is a highly respectable and dignified member of society. But the smaller man of humble origin, who came from his native deserts with a brass pot and loin-cloth and has made his way by petty trade and moneylending, is a veritable Shylock. But great or small they are absolutely unfitted by their natural instincts to be landlords, being unable to take a broad view of the duties of the position or to realise that rack-renting will not pay in the long run. The Telis are an important caste who, in this District, are properly counted among agriculturists. As cultivators they rank below Kunbīs, but their business capacity and ability to make money in miscellaneous ways stand them in good stead, and as a body they surpass the Kunbīs in prosperity. The Kalārs have taken extensively to cultivation and moneylending. They show their Baniā origin clearly and are without exception the most grasping of moneylenders and the hardest of landlords. They are found as cultivators chiefly in the jungly tracts where they went to supply liquor to the Gonds, and they are now settled on the lands lost by the latter through the same love of liquor. Speaking generally, the mālguzārs are an extremely well-to-do body of persons with a high standard of comfort. The difficulties in which some of them are involved are generally due to present or past extravagance, except in a few cases of petty

shareholders where the proprietary body is numerous, and of men who are solely dependent for their support on small and remote properties.

Condition of the tenants.

153. The principal caste of tenants are Kunbīs, Brāhmans, Telis and Mahārs. The Kunbīs predominate, but Mahārs are numerous and Mahār tenants are seldom very well off. The Brāhmans are often non-resident and are generally well-to-do. They either sublet their fields or manage them through hired servants. Telis are always strong cultivators and it is to this class that the most substantial tenants frequently belong. The bulk of the cultivators, however, do not rise above the average native standard of capacity, and they are rather a spiritless set and not self-helpful. That there is a very large amount of chronic debt among the cultivating classes is certainly true, and that there are not many cultivators who are quite free from all debt is also true, but a very considerable proportion of those who are indebted have simply borrowed on the security of their crops and will pay off and borrow again on that security. It is believed, however, that the cultivators are beginning to realise the tax which the payment of heavy interest for grain loans imposes on their industry, and that an increasing proportion of them try to preserve their own supply of seed-grain. This tendency is accentuated by the fact that they seldom get fair treatment at the hands of the moneylenders, and they are now getting intelligent enough to realise this fact. An inquiry conducted into the circumstances of tenants at the time of attestation for the settlement showed that a quarter of the whole number were free from debt and in prosperous circumstances, and 60 per cent. owed a certain amount but were not heavily involved and had not mortgaged their holdings. These are the large class who borrow regularly for the expenses of seed-grain and cultivation and make payment at harvest. Only 15 per cent. of the total number were deeply in-

volved or without cattle and in a condition of living from hand to mouth. The results of a similar inquiry given in the next paragraph shows that the position of the tenantry was distinctly better in 1907 than at Mr. Craddock's settlement.

Material condition of the people.

154. The following note on the condition of the people has been furnished by Mr. F. Dewar:—

'Since the famine of 1897 the 'Nāgpur District has enjoyed an era of increasing pros-'perity, due chiefly to the development of the cotton 'industry but also in part to the opening of the manganese 'mines. The recurring epidemics of plague have at times 'checked progress, and the wave of prosperity has not 'carried all classes of the people equally far forward, but 'it may be safely stated that never before in history has the 'average material condition of the people in town and 'country been so high as it now is.

'There has been a strong trend of the people to the 'towns and about one-fourth of the population now lives 'in Nāgpur City, Kamptee, Umrer, Rāmtek and five other 'towns. In most of these places municipal taxation is now 'twice as heavy as it was ten or fifteen years ago, yet it is 'still very light and is nowhere felt as an appreciable burden 'on any class. In Nāgpur the water-rate has risen from 'Rs. 12,000 in 1891-92 to Rs. 42,000 in 1904-05, and the 'octroi tax on grain, sugar, and drugs from Rs. 80,000 to 'Rs. 1,49,000. Public revenue from municipal land and 'buildings has also greatly improved and the general in-'crease of income has permitted increased expenditure. 'The resulting improvements in conservancy and drainage, 'in street-construction and street-lighting, in water-supply, 'and in the machinery for the collection of taxation, a most 'important department of local administration in India, 'have enormously increased the comfort of life in towns. 'The result has been a steady flow of population from the

'country and from other parts of India. The richer classes 'of bankers, landlords, traders, industrialists, and professional men have benefited very greatly by the general 'prosperity. Even plague has been to these classes rather 'a healthy stimulant than a disaster, since it has induced 'them to abandon their cramped and crowded city houses 'and to build airy and well-lighted suburban villas furnished 'comfortably in European style. Tradesmen of the middle 'class are moving in the same direction. The city municipality has provided large suburban areas which are 'being taken up by private lessees for comfortable cottages. 'In two at least of the smaller towns the traders have 'seized their opportunity very quickly and are building extensively. The artisan class reaps its full share of the general 'prosperity. These also, with doubled incomes, have 'doubled their comfort in housing, furniture, and clothing. 'It is generally agreed that, next to good sanitation, the 'improvement most conducive to general comfort and 'morality, in fact most civilising, is improvement in house-'lighting. Ten years ago not one town house in twenty was 'more than very dimly lit, if lit at all, but the kerosine lamp 'is now common in the houses of all except the poorest class. 'Other articles besides those of ordinary furniture which one 'most frequently observes are clocks and watches, sewing-'machines, and bicycles. The hand-loom weaver is less 'fortunate than other artisans, but he has hitherto been 'able to maintain successfully his struggle against machinery and he gets very good prices for his cloth. He is 'much handicapped in time of plague because he cannot 'readily evacuate the dwelling which is also his workshop. 'The labouring class in general is in demand everywhere, 'for the cotton mills and factories, for road, railway, and 'tank construction, for the manganese mines, and for 'agriculture. The ordinary wage for both men and women 'has more than doubled within a few years, and though the 'prices of necessaries have risen also, the balance is in

'favour of wages. Whether the material condition of this 'class has greatly improved is however a more difficult 'question to decide. That it has more spare money available is clear, but it is clear also that much of this is mis-'spent on excessive stimulants, on cheap cigarettes, on 'sweet coloured drinks and on worthless trinkets. The 'labouring family which formerly lived in a country village, 'and earned only Rs. 7 or Rs. 8 per mensem, had at least 'a comfortable village house and small garden. It now 'earns from Rs. 15 to Rs. 20 per mensem but lives too often 'in a wretched hut in one of the overcrowded quarters of 'the city. It is true that in former days it suffered the 'privations of occasional famine. From these it is now 'fairly secure, but it is exposed to the still greater peril 'of plague. The crying need of the labouring class in the 'city and in the larger towns is for better housing. For 'this the labourer is quite able to pay, but hitherto 'private house-builders have not come forward to supply 'the demand, possibly because plague epidemics render 'evacuation so frequently necessary. But an important 'experiment has been undertaken by the management of 'the Empress Mills with the object of housing its oper-'atives. Should this succeed it is possible that the city 'municipality may push the project further. Meanwhile 'the labourer, though badly housed and much exposed 'to plague, continues to concentrate in the industrial 'centres and to work and live there with great apparent 'cheerfulness.

'Three-fourths of the people of the District live in the 'villages and depend chiefly on agriculture. These have 'been affected closely by the great change in cropping 'which has occurred within ten years owing to the 'increased profits of cotton-growing. That crop has 'greatly extended at the expense of wheat and of all 'other crops except the juār millet. The change has 'benefited all classes of the agricultural community. The

'non-resident landlord, it is true, seldom makes a large 'profit from his home farm and his rents are so much limited 'by Revenue law that they necessarily stagnate, but the value 'of his land has greatly increased. The resident landlord 'and the better class of tenant farmers have made small for-'tunes and almost all the smaller cultivators have improved 'their position. The following statistics about tenants are 'derived from a special enquiry instituted in the early part 'of 1907. The A class tenants form 8 per cent. of the 'farmers. They have no debts and each owns usually 20 'cattle and one or two carts worth about Rs. 800, with '50 acres worth about Rs. 3400. They have also unknown 'stores of silver. The B class men number 19 per cent. 'and each has a debt of about Rs. 50 but possesses 14 'cattle and a cart worth Rs. 500 and 36 acres worth 'Rs. 1350. A proportion of 56 per cent. of the cultivators 'come into the C class, each of whom, on an average cal-'culation, has a debt of Rs. 100 but owns 5 cattle and a 'cart worth Rs. 110 and 18 acres worth Rs. 470. Only 17 'per cent. are distinctly poor men who have a debt of about 'Rs. 35 and 20 acres of poor land worth Rs. 440. The 'average net income of all classes from agriculture alone is 'from Rs. 25 to Rs. 30 per mensem, and even the poorest 'men are at present solvent. Many cultivators add to their 'incomes by the carting of cotton, timber, and manganese, 'but it is to be regretted that the improvement of the Dis-'trict roads has hitherto been slow. The only inconve-'niences generally felt by the farmers are the lack of labour 'and the difficulty of feeding stock now that the area under 'straw-growing crops has diminished. The general con-'ditions of village life have improved. House-lighting is 'not so good as it is in towns, but it is much better than it 'was a few years ago. Very many new wells have been 'dug and though much remains to be done in sanitation the 'cleanliness and comfort of all but the largest and most 'crowded villages have improved. Plague does not affect

'the villager so acutely as the townsman because the former 'finds little hardship in living out in his fields during the 'open season, and it may be noted that the richer men are 'beginning to abandon the crowded village sites and to build 'comfortable houses in the open among their fruit gardens. 'The tone of village life is very cheerful, especially in the 'western part of the District, the markets and festivals 'are largely attended at all seasons, and bullock-racing, 'the chief sport of the locality, has never been more 'popular.'

PRICES.

History of prices.

155. Mr. Craddock sketches the course of prices in past years as follows[1] :—

'The policy of road-making initiated by Sir R. Temple in '1862 was the first factor in bringing about a rise in the 'prices of agricultural produce, but the quickening of trade, 'which this policy would have brought about, would neces-'sarily have been a gradual process had it not been suddenly 'stimulated by the effect of the American War of Secession 'in 1862. The sudden demand for raw cotton to supply the 'Lancashire mills caused the price of that commodity to rise 'by leaps and bounds. The acreage placed under the crop 'expanded enormously, and the prices of grain and oilseeds 'at once rose in sympathy. Later on came a reaction; 'but the export trade had received an impetus which was 'never wholly withdrawn. The opening of the railway to 'Nāgpur in 1867; the rise of the cotton industry ten years 'later; the simultaneous opening out of markets in other 'parts of India; the further extensions of the Chhattīsgarh 'line in 1882, and of the Bengāl Nāgpur line in 1889, have 'all contributed to an increased demand for the produce 'of the country, and with it to an increased purchasing power 'of the owners of the land, the price of every kind of 'agricultural product having steadily risen. Now and then

[1] Settlement Report, para. 177.

'there have been fluctuations; a dull foreign trade or plentiful 'harvests have caused a temporary and partial fall; but suc- 'ceeding failures or reviving exports have again come into 'play, until rates, which thirty or forty years ago would 'have been regarded as famine prices, are now looked upon 'as the normal rates which every agriculturist producer 'looks to realise. The history of prices, forming at once 'the most important factor in the prosperity of the agri- 'cultural classes and the main determinator of the ratio of 'rent enhancement, divides itself into two great periods— 'that prior to and including the year 1862 and that from '1863 onwards.' The Imperial compilations of prices and wages go back as far as 1861, and they give only the retail rates at the chief market towns, being thereby subject to influences of the most local character. Mr. Craddock, therefore, drew up from the account books of large estates and landowning firms a statement of the wholesale prices in rupees per *khandī* (of 400 lbs. of wheat) at which produce was purchased from the cultivator at harvest-time. The statement thus obtained is given below, the rates having been converted into pounds per rupee; the percentage by which the prices of the last period, preceding Mr. Craddock's settlement, exceeded those of the first period, preceding the 30 years' settlement, is shown at the end.

Period.	Wheat.	Cotton.	Linseed.	Juār.	Til.	Tūr.	Rice.	Gram.	Lākh.
1841-62	77	27	78	112	38	142	139	66·6	114
1863-70	34·7	8	24·4	50	22	45	40	43	53
1871-75	45·7	9·3	32·6	57	27·6	57	47	46	66·6
1876-80	35	9	27·7	47·7	19	50	38	39	52
1881-85	45·7	8·7	28	61·5	19	64	42	52	80
1886-90	39	9	26	50	19·5	53	40	41	55
Increase per cent. in rates of 1886-90 over those of 1841-62	97	200	200	124	95	168	247	62	107

156. The average rise in prices of the chief staples of the District, covering more than 90 per cent. of the cropped area, during the period of the 30 years settlement thus worked out to 137 per cent. As against this large increase, more than doubling the income of agriculturists, the increase in the rental was only 33 per cent. Another advantage to the agriculturists lay in the fact that the prices of the principal articles, which he requires to purchase, did not rise in the same proportion as that of grain. The imports of European cloth and the establishment of local mills kept down the price of cloth, while the rate of salt though somewhat higher at the period of Mr. Craddock's settlement than formerly, has since also largely declined.

Increase at last settlement.

157. The staple food-grain of the District is juār, which was selling at 44lbs. to the rupee in 1891. It has never since been so cheap, the average for the decade ending 1900 working out at 35lbs., while during the famine years of 1897 and 1900 the rate rose to 22lbs. In 1906 it was 28lbs. Wheat was 29lbs. in 1891 and ranged between 18lbs., a famine rate, and 33lbs. during the decade ending 1900, the average rate being 25lbs. During the five years, 1901-05, the rate was 26lbs. Common rice was usually sold at 20 to 23lbs. to the rupee during the fifteen years ending 1906, while the best kind of rice now often fetches as much as a rupee for 10lbs. Ginned cotton fetched an average rate of 5lbs. to the rupee between 1890 and 1900, and between 5 and 4lbs. during the following five years, rising to 3lbs. at one time in 1907. Linseed was 17lbs. in 1891 and 16lbs. to the rupee on the average during the decade ending 1900. During the next five years the rate was 14lbs., and in 1907 went as high as 8lbs. to the rupee. The average price of gram has been 30lbs. to the rupee in the last fifteen years, varying between 25 and 39lbs. and rising to 18lbs. in 1897.

Prices in recent years.

Prices of miscellaneous articles.

158. During the period 1860-74, before the abolition of the salt customs line in the latter year, the price of salt varied between 12 and 20lbs. to the rupee. Before the 30 years' settlement, Mr. Craddock states it had been obtainable at 24lbs. The duty of Rs. 3 per maund was lowered to Rs. 2-8 in 1878 and to Rs. 2 in 1882, was again raised to Rs. 2-8 in 1888, reduced to Rs. 2 in 1903, to R. 1-8 in 1905 and to R. 1 in 1907. The retail rates returned have varied with the duty; the price ranged from 21 to 24 lbs. per rupee between 1878 and 1888, and was steady at about 20lbs. between 1888 and 1902. It fell to 21½lbs. in 1904, to 24lbs. in 1905, 30lbs. in 1906 and 32lbs. in 1907. This is the rate for Bombay sea salt which is generally used in the Marāthā country. Khārāghoda salt, sold in big balls, is more expensive, a rupee fetching only 16 to 20lbs. This is generally preferred by immigrants from Bengal and Northern India. The sugar produced in Northern India, known generally as Mirzāpurī, is now most consumed. It is sold wholesale at Rs. 4-8 a maund of 25½lbs. and retail at about 6lbs. to the rupee. *Gur* or unrefined sugar comes principally from Northern India and is retailed at 10 to 12lbs. the rupee. *Ghī* now costs a rupee for 10 to 11 chittacks[1] retail, and Rs. 18 per maund of 24lbs. wholesale. In former times it sold at Rs. 8 a maund. Ordinary milk is retailed at 16lbs. to the rupee and the best pure milk at 10lbs. Cotton seed sells at 32lbs. per rupee in retail and Rs. 18 a *khandī* of 640lbs. in wholesale transactions. *Karbī* or juār stalks cost from Rs. 20 to Rs. 70 per thousand large bundles, the lowest rate prevailing immediately after the harvest and the highest one in the hot weather. Oranges are sold at Rs. 20 to 30 a thousand at the crop season, but in the hot weather they are as dear as Rs. 10 a hundred. Plantains cost Rs. 2 to Rs. 3 a hundred. Grass sells at about three rupees a thousand bundles, and the price of

[1] One chittack=2 ozs.

fuel has also largely risen, a cart-load of about 7 cwt. costing four rupees, while it is retailed at 1½ cwt. to the rupee.

Wages.

159. Between 1873 and 1901 the wages of a labourer were returned at Rs. 4 to Rs. 5 a month. They rose to Rs. 5 in 1893, and were maintained at this rate till 1901 except in the years 1895 and 1896 when they were only Rs. 4. There was a further increase to Rs. 5-8 in 1902 and Rs. 6 in 1903. The last few years have witnessed a most marked increase in the general rates of remuneration, both of skilled and unskilled labour, resulting from various causes. Of these the principal are the development of the mining and cotton factory industries, the construction of new railways, the largely increased amounts spent by Government on public works, such as roads, buildings and irrigation tanks, more especially in Nāgpur District, the general increase of prosperity produced by the large profits of the cotton crop, the expansion of cultivation to whatever unoccupied land is still available and more intensive cropping, the substitution of crops demanding laborious cultivation like cotton and juār for wheat and linseed, which require less hired labour, and lastly the partial depletion of the working population by the ravages of plague and famine. In Nāgpur it is now difficult to obtain a coolie for the most simple and easy kind of unskilled labour, such as grass-cutting, at Rs. 6 a month. A coolie engaged to carry a load has to be paid 6 annas a day and a banghy-bearer asks for 8 annas. Porters on railway stations earn from 12 annas to a rupee a day, and carts charge a rupee a day rising to R. 1-8 in the rains. Male factory hands earn 5 or 6 annas a day and women 3 annas. A boy of 12 or 14 can make Rs. 5 a month. The factory hands have become conscious of their power and of the difficulties to which they can put their employers by refusing to work during the dearth of labour, and have learnt to improve their position by threats of a strike. Their standard of living has risen by leaps and bounds, and this has had a

Urban and factory wages.

marked effect on the remuneration of other labourers both rural and urban. Mahārs are commonly employed in the ginning factories, while for the presses, skilled *hammāls* or porters of the Marāthā caste are imported from the Sholāpur District of Bombay. The wages of skilled artisans as masons, carpenters and blacksmiths were returned as Rs. 15 a month from 1893 to 1901, and in 1903 were reported to be Rs. 18. A fairly good workman can now earn from 12 annas to a rupee a day in Nāgpur, while goldsmiths and the best Punjābi carpenters can earn Rs. 2 a day and the latter can choose their employers, refusing any work they do not care about.

Farm-servants.

160. Farm-servants are paid sometimes in cash and sometimes in grain. The cash wages vary from Rs. 4 in the remote parts of the District to Rs. 6 in the cotton tracts. Custom exercises a strong influence on grain wages, and they have not advanced very largely even in the last eighty years. This is not unnatural when it is considered that the produce of the land remains more or less constant, while it must also be remembered that the increase in cash rates has hitherto been counterbalanced by the rise in prices, and it is only in very recent years that the labourer's position has really improved. In 1827 Sir R. Jenkins recorded that the annual wage was usually 1200lbs. of grain with a blanket and a pair of shoes, and as much as 1440lbs. was only given in exceptional circumstances. The grain wages at present are 7 small *kuros* (of 15lbs.) or 105lbs. a month, that is 1260 lbs. a year, besides presents at harvest and at the Polā festival, amounting to another 140lbs. The farm-servant also receives Rs. 2 in cash, this payment being known as *wās*. This works out to about Rs. 5 a month. In Rāmtek the grain wages come to 1320lbs. with Rs. 4 in cash as against Rs. 2 a few years ago. The wives of farm-servants usually work for their husband's master, but are not under any special contract to do so as in other Districts. They are allowed a day's gleaning free, in which they pick up about 20 lbs.

Private graziers employed by mālguzārs or large tenants are paid at the same rate as farm-servants. To village graziers, who pasture cattle by the month for hire, the fees paid are 4 annas for a cow and 8 annas for a buffalo.

Agricultural labourers.

161. Agricultural labourers are generally paid in cash for weeding and in grain for harvesting and sowing. During the weeding season the demand for labour becomes most acute, and though the ordinary wages are 4 annas for a man and 2 to 3 annas for a woman they may rise to 5 or even 6 annas when the number of workers is insufficient. In Sir R. Jenkins' time a man only earned from 2 to 3 pice a day, and at Mr. Craddock's settlement (1894-96) from 2 to 3 annas. Cash wages have therefore nearly doubled in ten years. The watching of the crops is generally done by the tenant or his farm-servants, and labourers are rarely employed. The picking of cotton is paid for by contract at from two to five annas per maund of 16 seers. In the case of juār the man who cuts the stalks gets about 11lbs. of grain a day and the women who cut off and collect the heads, receive about 5lbs. At the wheat harvest 7 or 8lbs. of grain are paid as wages, but more work has to be done as the days are longer. At harvest-time a labourer and his family can calculate on earning enough grain to feed them for three months. In the case of juār it is said that on an average a quarter of the crop is paid in wages for weeding and harvesting.

MANUFACTURES.

(B. DE.)

Weaving.

162. By far the most important of the hand industries of the District is weaving, especially the weaving of silk-bordered cloth, which has had a long and notable past and may hope for a porsperous future. Nāgpur cloth is known to have been exported to various parts of India under native rule. Just before 1872, the industry suffered a period of depression,

due to the competition of machine-made goods, but it has recovered in recent years, and it is stated that in 1901, about 90,000 lbs. of raw silk, valued at 5 to 6 lakhs of rupees, were imported into the District. In the Industrial Arts Exhibition, held in connection with the Coronation Darbār at Delhi, beautiful specimens of gold and silver brocading on textile fabrics were sent as exhibits from Nāgpur, each piece being valued at over Rs. 150 and some rising as high as Rs. 400 a piece. The majority of the weavers are Koshtīs. In 1872 the Koshtī population was 31,797 and rose to 44,825 at the census of 1891, an increase of 41 per cent. in 20 years; in 1901 the Koshtīs numbered 44,020, representing 6 per cent. of the total population of this District. In years of bad harvests, Koshtīs are among the first to feel the scarcity and no doubt the famines of 1897 and 1900 affected their numbers. The introduction of mills and factories has little effect on the older weavers, who are not disposed to give up their looms, and would rather submit to earning low wages than seek employment in them, although they have no objection to sending their children to work in factories. In this District cloths with silk borders are manufactured, the yarn used being machine-spun. In Nāgpur city and at Dhāpewāra in Nāgpur tahsīl, and Khāpa in Rāmtek tahsīl, *sārīs* or women's cloths made of dyed yarn are woven in great numbers. It takes about a week to weave a *sārī*, and the price obtained is from Rs. 8 to 9. In Umrer tahsīl white *dhotīs* or loin-cloths and *dupattās* or head-cloths with red silk and sometimes with gold lace borders are woven. The average price of a pair of *dhotīs* is about Rs. 14, and that of a pair of *dupattās* Rs. 10. At Binā and Mondā in Rāmtek tahsīl some Koshtis turn out good cotton cloth. Cotton *sārīs* worth about Rs. 4 apiece are woven at Kalmeshwar. The manufactured cloth is exported to Bombay, Poona and various parts of India, besides being sold locally. A Koshtī with his wife earns about Rs. 15 per month, and usually follows his hereditary

occupation. The Gārpagāris, whose hereditary profession was to protect crops from hail, have been obliged through lack of custom to give up that calling and now earn their livelihood by making coarse *newār* cloth used for bedding. They reside chiefly in the large towns and at Belā in Umrer tahsīl. Some of the Mahārs or Mehrās, who, forming about 16 per cent. of the population, follow various occupations, weave coarse cloth for the poorer classes. Dhangars prepare *gonās* or coarse cotton carpets. Country blankets worth about Rs. 2 each are woven by Dhangars at Bamnī, Warūr, Dhāpewāra, Kalmeshwar and its environs. The local supply of these blankets is however insufficient to cope with the demand and they are generally imported from Berār, Khāndesh, Madras and other places.

163. Cotton yarn for coloured cloth is dyed by Rangāris, but the dyeing of silk is done by Patwīs (braiders), who also sew silk thread on ornaments. All dyes are imported from Europe, artificial indigo being mixed with a little of the natural product. *Jāzams* (carpets) and *razais* (quilts) are made by Rangāris at Pātansaongī, Saoner, Sāwargaon, Narkher and Bhiwāpur. Chhīpas also follow the occupation of Rangāris and make carpets and quilts. Hemp matting is woven at Kamptee, Nāgpur, and at Gauri in Rāmtek tahsīl by Bhāmtas, who also make net bags for holding cotton in the busy season. Ropes made of *san*-hemp (flax) and thick screens (*tarats*) are also made by Bhāmtas at Nāgpur and Makardhokrā. The Momins or Muhammadan weavers make handkerchiefs, *susī* or striped and checked cloth, and the *lugrīs* worn by low-caste women. Momins are as a class very poor and dirty.

Dyeing.

164. The gold and silver workers in this District seem to be steadily increasing. There had been an increase of about 25 per cent. from 1872 to 1891, and the population of 9734 in 1891 rose to 11,171 at the census of 1901, forming about $1\frac{1}{2}$

Metals.

per cent. of the population. Mr. Craddock writes in his Settlement Report :—'The proportion of Sonārs' shops to a 'village in this District is surprisingly large. In Bori, for 'instance, a town of 3400 inhabitants, with no great trade, 'there are eight Sonārs' shops. In Narkher, with its popula-'tion of 8200 people, there are twenty-five Sonārs' shops.' This fact affords a good indication of the wealth of a District in which even coolie women may be seen wearing gold. Sonārs also find plenty of work and earn on an average about Rs. 40 per mensem. No casting work is done. The following are some of the ornaments most in fashion. Gold bangles worn on the wrist are known as *patli* and *tore* and those worn above the elbow as *wāki*. *Karanphūl* signifies large ornamental ear-rings. *Kekat* or *Kevarā* is an ornament with flowers engraved on it worn on the crown of the head. Hairpins have heads representing *Nāg* or the image of Vishnu lying on seven serpents, or *mastarāj*, consisting of representations of roses and flowers. Various silver ornaments and nose-rings, earrings and necklaces, set with pearls, are also made by Sonārs. The Sonārs and Panchāls are the two castes working in the precious metals. The Panchāls are immigrants from Madras and call themselves Vishva Brāhmans, but are looked down on by the Sonārs who regard them as foreigners. The Panchāls are the best workers and do engraving and inlaying, earning as much as Rs. 50 a month. They are very intelligent and are capable of turning their hands to anything.

Ornaments of German silver, bell-metal and zinc are worn by the poorer classes. The Kasārs or brass-smiths make the ordinary domestic utensils, the brass being imported in sheets from Bombay. They earn about Rs. 20 a month. Dolls and images of gods and goddesses with special designs were formerly made, but this kind of workmanship is now extinct. Cooking-pots and large vessels for holding water are the only articles made of copper. Imported vessels of German silver and aluminium are used by the richer classes. The ironsmith's work is of a rough and

primitive nature. In villages only agricultural implements and cart-tyres are made. In Nāgpur and Kamptee, buckets, pans, chains and corn-measures are manufactured and a few of the best workmen make knives and hogspears to order. The average income of a Lohār is about Rs. 15 a month.

Other industries.

165. The iron industry is declining, but the carpenters are prosperous, and wood carving of some artistic merit is executed. The Punjābi carpenters are better workmen than the indigenous artisans and their earnings amount to Rs. 2 a day. A doorway specially executed for the Delhi Exhibition was much admired, and the gateway of the Bhonsla Rājā's residence in the city and the Rukmini temple contain good specimens of wood-carving. Baskets, chicks, mats, fans and sieves are made from bamboos by the Burads in the large towns. Their industry is of some importance in Kalmeshwar, and their average income is Rs. 15 a month. Brushes and mats of date-palm leaves and scale-pans are made by Māngs. There are a number of potters in each of the towns, but the best earthen vessels are produced at Rāmtek, Pārseonī and Korādi, and those of Rāmtek are largely purchased by pilgrims coming to the Ambāla fair. These consist of small jugs and cups as well as the ordinary earthen vessels. At Kamptee the Kumhārs make bricks and tiles of the Allahābād pattern and do a good trade. Most of the glass bangles worn are imported, but bangles and rude bottles of glass are made by Muhammadan Kacherās at Rāmtek. Lac bangles are made at Kelod, and the Chitāris of Nāgpur make ivory bangles and dolls and images of Ganpati and Mahālakshmī as well as decorating the walls and ceiling of houses and painting devices on cots and stools. The Mochīs of Nāgpur and Kamptee make good boots, shoes and sandals.

Cotton mills.

166. There are two spinning and weaving mills in the city of Nāgpur and the District contains eighteen pressing and twenty-three ginning factories. The motive power in all of these is

steam except in the Ahurmurzd cotton factory in Kamptee, which contains a hydraulic press. Most of the factories have been established during the last decade, but the Empress Mills were opened on the 1st January 1877 by the Central India Spinning and Weaving Company under the management of the late Mr. J. N. Tata, with a capital of Rs. 15 lakhs. Under the personal supervision of Mr. Tata, the mills soon became a profitable concern, and the present paid-up capital is nearly 47 lakhs. The outturn of yarn has now risen to about 9½ million pounds or 112,000 maunds annually, while that of cloth is nearly 5 million pounds or 60,000 maunds. The value of the yarn and cloth turned out in 1906 is estimated at Rs. 42·45 and 34·91 lakhs respectively. The total profits in this year were Rs. 20·61 lakhs as against Rs. 18·84 lakhs in 1905. The quantity of cotton consumed during the year 1905-06 was 19,343 *khandīs* of 784 lbs. each or 189,561 maunds. The mills now contain 75,000 spindles and nearly 1400 looms, and employ about 4300 operatives. The counts of thread spun are from 6's to 80's, but the most usual are 12's to 20's. A small quantity of the cloth manufactured is sold locally, but the bulk is exported to Bengal, the United Provinces, and other Districts of the Central Provinces. Occasionally a certain amount of business is carried on with China. Cotton is usually purchased from villages in the Districts of the Central Provinces where there are ginning and pressing factories, only a small fraction of the cotton consumed being imported from America and Egypt. The Company supports large Workmen's Provident and Pension Funds amounting at present to Rs. 1·78 lakhs and Rs. 53,000 respectively, and this action is so unusual in India as to deserve special mention. It also partially insures its own property. The mill premises are fitted with electric fittings and with automatic fire protectors, and the mechanism is of the newest pattern, some of it being driven by dynamos. The only point of commercial interest is that in bleaching operations no lime

is used. Common salt solutions are submitted to electrolysis, and the solution of sodium hypochlorite produced is used for bleaching purposes. The concern is a very profitable and thriving one. The other mills, known as the Central Provinces Swadeshi Mills, were established in 1892, with a nominal capital of 15 lakhs. They contain 16,500 ring spindles and 180 looms. The outturn of yarn in 1905-06 was 2½ million pounds, valued at Rs. 10·46 lakhs and that of cloth was 600,000 lbs. valued at Rs. 3·97 lakhs. The paid-up capital is Rs. 14 lakhs. The mills are working at a loss and have recently been sold to the Bombay Pārsī firm of Petit. The average number of operatives employed daily is about 900. In cleaning cotton about 10 per cent. of its weight is lost, but in the sizing process the gain in weight amounts to 10 to 15 per cent., so that the weight of thread and cloth is nearly equivalent to that of the raw cotton.

Ginning and Pressing Factories.

167. Some of the ginning and pressing factories are owned by Pārsī and English Companies, some by Baniās and others by Mārwāris. Twenty of the factories are located in the city of Nāgpur, five at Kamptee, six at Saoner, seven at Kātol town, one at Kelod and one at Kondhāli in Kātol tahsil. Only two of the ginning factories contain double roller gins, the rest containing single rollers. Five factories contain more than 50 gins, three between 40 and 50, and ten below 40. Statistics for five are not available. The collective capital of all the ginning and pressing factories is 25 lakhs. The ratio of ginned to seed cotton is 35 per cent. for *jarī* and 28 per cent. for *banī* cotton, which is of superior quality. The rate charged for ginning cotton varies considerably, especially at the Empress Mills, but it is generally Rs. 4 per *bojhā* of 345 lbs. For pressing a bale of cotton the charge is Rs. 3-8. The average outturn of a single roller gin is one *bojhā* of 345 lbs. of ginned cotton per diem, and that of a press is from 200 to 300 bales a

day. The total average number of operatives working in the factories was 2787 in 1906 as against 3303 in the year preceding. The wages of unskilled labour are 4 annas to 5 annas for a man and 3 annas for a woman. The total capital invested in the mills and factories is about 87 lakhs.

Weights and measures.

168. Grain is measured in this District by *pailīs* according to the following scale:—

1 *ser* = 25 tolās.
1 *adhelī* = 2 *sers* = 50 tolās.
1 *pailī* = 2 *adhelīs* = 100 tolās or $1\frac{1}{4}$ Government seers.
1 *kuro* = 8 *pailīs* or 10 seers.
1 *khandī* = 20 *kuros* or 5 maunds.

The *ser* of 25 tolās is equivalent to a double handful of grain, which is known as *onjal*. Half a *ser* is a single handful, called *pāsā*. The *pailī* is the measure commonly used and *kuro* measures are seldom seen. The unit of weight for cotton seed and uncleaned cotton is the *khandī* of 658 lbs. For cleaned cotton the unit is the *bojhā* or bundle of 345 lbs. A commercial bale of cotton is $3\frac{1}{2}$ cwts. or 392 lbs., but is commonly taken as 400 lbs. The counts of thread are calculated as follows. A hank of 840 yards of No. 1 thread weighs one pound *avoirdupois*, and two hanks of No. 2, three hanks of No. 3, twenty hanks of No. 20, and so on, each weigh a pound. Thus twenty yards of No. 20 weigh as much as one yard of No. 1. Different sets of weights are used for most of the articles of daily consumption, thereby facilitating fraudulent practices.

Thus for sugar:—

1 *paserī* = $127\frac{1}{2}$ tolās.
1 maund = 8 *paserīs*.
1 *khandī* = 10 maunds.

For *ghī*—

1 *paserī* = $1\frac{1}{2}$ seers = 120 tolās.
1 maund = 12 seers = 8 *paserīs*.
1 *khandī* = 20 maunds.

For *gur*—

1 *paserī* = 130 tolās.

1 maund = 8 *paserīs* = 13 seers.

1 *khandī* = 20 maunds.

For salt—

1 *paserī* = 150 tolās = $1\frac{7}{8}$ seers.

1 maund = 8 *paserīs* = 15 seers.

A sack contains 6 *kachchā* maunds or 90 seers.

For spices—

1 *paserī* = $106\frac{1}{4}$ tolās.

1 maund = 8 *paserīs*.

Sago, raisins, potatoes and other articles are sold by the Government seer and maund.

In Nāgpur city the unit of weight for gold is a Katkī tolā of 12 *māshas*. It is different from a rupee, which weighs only 11 *māshas*. The descending scale is :—

1 *māsha* = 4 *wāls*.

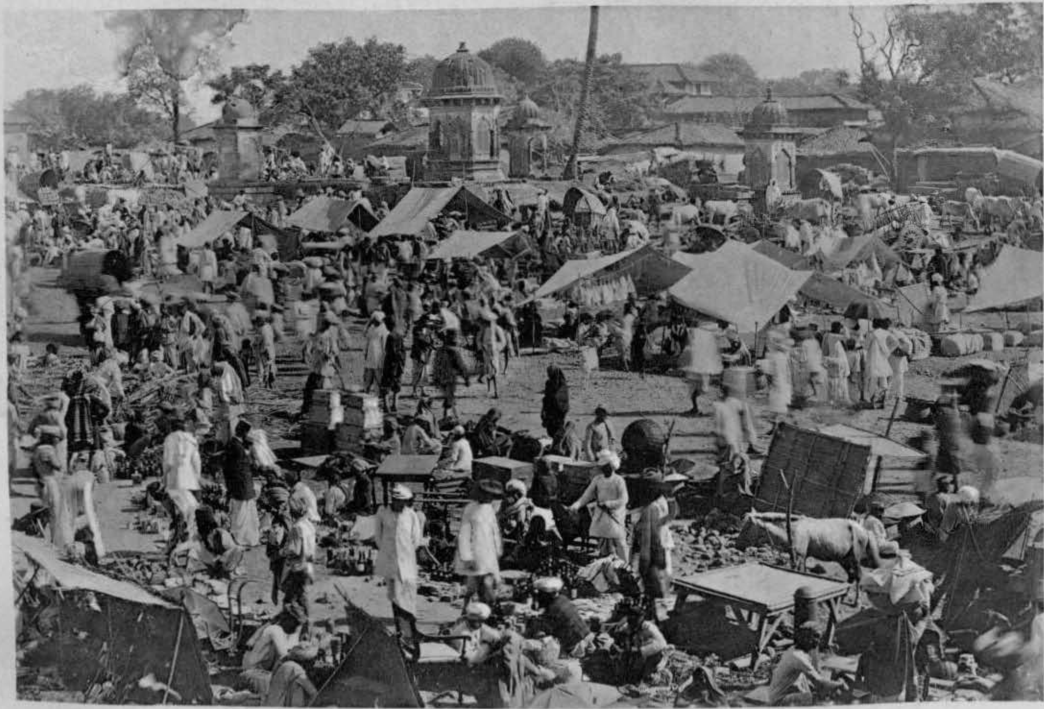
1 *wāl* = 2 *gunjas* (the seed of *Abrus precatorius*,)

1 *gunja* = 2 *gahus* (wheat seeds).

1 *gahu* = 2 *jondhrās* (juār seeds).

1 *jondhrā* = 2 *tāndurs* (rice seeds).

But outside the city of Nāgpur gold is weighed with rupees and eight, four and two-anna pieces. For silver, copper and brass, Government weights and rupees are invariably used. For oil a *pailī* measure equivalent to $1\frac{3}{4}$ seers or 140 tolās weight is used. A plough or *nāgar* of two bullocks is 15 to 20 acres of land, varying according to the nature of the soil. The seed area of a *khandī* of wheat is from 8 to 10 acres and that of a *dharā* (8 lbs.) of cotton is about an acre of land. Seed can be sown in about 3 acres of land in one day with a *tifan* or seed-drill and four bullocks, while with a two-bullock drill more than an acre cannot be covered. In cotton fields, a *daurā* is used for weeding operations, and the weeding of 4 acres of land can be done in one day. Twenty head of cattle make one *khandī* and a *kos* is equivalent to two miles.



Bemrose, Collo., Derby.

169. In the Marāthā Districts the Saka era and calendar are used. This era commenced in 78 A.D. and is believed to have been founded by a Scythian King, Sālivāhan, of the Yueh-chi tribe, who reigned in Kāthiāwār. The year 1905 was 1826-27 of the Saka era. The Saka calendar differs from the Vikrama calendar in common use in the Central Provinces, in the fact that each month begins a fortnight later. Thus Chaitra, the first day of which month begins the new year, corresponds to the second half of the Vikrama Chait and the first half of Baisākh. The Saka months begin with the new moon and the Vikrama months with the full moon. The 1st of Chaitra may fall as early as the middle of March, but more commonly comes in the last week of March or the first week of April. Consequently Chaitra may be taken roughly as corresponding to April. The names of the Saka months, are practically the same as those of the Vikrama months but they retain the correct Sanskrit form, whereas the Vikrama names are Hindi corruptions. But the Vikrama month Kunwār is called Ashvin in the Saka calendar and the month Aghan is called Mārgashir. Both eras are luni-solar and the year consists of about 355 days, but is made to correspond very nearly with the Gregorian year by the interposition of triennial intercalary months.

The Saka calendar.

170. A number of weekly markets are held in various towns and villages of the District. In the city of Nāgpur, there are seven weekly markets, named after and held on each week day. The Itwāri bazar is the largest attended by 10,000 persons, and the next in importance is the Budhwāri. The articles sold are the daily requisites of life. The other principal weekly markets of Nāgpur tahsīl are those of Kamptee, Saoner, Kalmeshwar and Borī; of Rāmtek tahsīl, Rāmtek, Khāpa, Kodāmendhī, Gauri, Hiurā and Pārseonī; of Kātol tahsīl, Kātol, Sāwargaon, Narkher, Jalālkherā, Kondhāli

Markets.

and Mohpā; and of Umrer tahsīl, Umrer, Sālwa, Bhiwāpur, Belā and Sirsī. The principal cattle-markets are held at Kamptee, Mohpā, Kodāmendhī, Sonegaon and Umrer. In municipal towns cattle are registered at the option of the buyer on payment of one pice per rupee. Cotton markets are held in Nāgpur city, opposite the railway station, and in Kamptee, Saoner and Kātol. A tax is levied on sales of cotton at the rate of one anna per cart-load and the income obtained is about Rs. 6000 in Nāgpur, Rs. 1500 in Kātol and Rs. 1000 in Saoner, which would indicate sales aggregating Rs. 1·40 crores in the three markets. Market dues varying with the price of the goods exposed for sale are also collected in Saoner, Kalmeshwar, Kātol and Rāmtek. Brokers (*dalāls*) are engaged for the purchase of cotton and grain. For a cart load, containing $1\frac{1}{2}$ *khandīs* (12 maunds) of cotton, 4 annas are paid as brokerage, but for the purchase of 100 rupees worth of grain brokers charge one rupee. The taxes levied are credited to municipal funds in towns, and the *dalāls* have to pay fees of Rs. 6 to 12 annually for licenses. In villages no license is required and kotwārs can be seen practising as *dalāls*. Kamptee market is famous for its fruit, especially oranges, plums and guavas and potatoes and other vegetables. Plantains are bought by the Kunjrās of Nāgpur, Kamptee and other towns from the market at Kodāmendhī. Mangoes are usually brought to Nāgpur from the Saoner tract.

Fairs.

171. Altogether ten annual fairs are held in the District, but with the exception of the Ambāla or Rāmtek fair they are only small religious gatherings, attended by the residents of the surrounding tract. At Dhāpewāra in Nāgpur tahsīl two annual fairs are held on the 11th day of Asārh Sudi and Kārtik Sudi (July and November) respectively. These are fairs of the Koshtīs, who assemble to worship their god Pandharīnāth. On Māgh Sudi 5 (February), the Koshtīs also come to Dhāpewāra to worship their saint Kolhāboā. A

small fair is held at Kātol in Chaitra in honour of the goddess Saraswatī. In Umrer tahsīl two fairs are held at Ambhorā on the Waingangā in the months of Jyeshth (June) and Māgh. A fair is also held at Belā in the month of Aghan (December) to which large numbers of *rengīs* or country carts are brought for sale. The most important fair of the District is that of Ambāla or Rāmtek. It takes place about the first week in November and lasts for ten days. Pilgrims from various parts of the Central Provinces and Berār come to the fair, and detailed arrangements are made for their accommodation. Several hundred temporary shops are opened and articles of various kinds are sold. The estimate of the gathering in an average year is 150,000 persons. In 1904 when plague broke out in Kamptee and efforts were made to dissuade pilgrims from attending the fair, the attendance was 89,000 persons, the lowest on record for several years; but in 1905, the gathering was extraordinarily large, amounting to 257,000 persons, while 43,000 carts, 86,000 bullocks and 14,000 horses are said to have been brought to the fair. A small tax is levied on articles exposed for sale, and about 500 rupees, just sufficient to meet the expenditure incurred, are collected by this means. The principal articles sold are strings of beads of lac and *rudrākshas* or wooden sacred beads and brass and copper pots from Nāgpur and Bhandāra. The sales are estimated at a lakh of rupees and the temples get about Rs. 2000. An agricultural exhibition is also held at this fair. There are no cattle fairs.

TRADE.

Trade in past years.

172. In the time of the Marāthās, grain, oilseeds and country cloth formed the chief articles of export. In exchange for these commodities the District received European piece and miscellaneous goods; salt from the Konkan; silk, sugar and spices from Bundelkhand, Mirzāpur and the north; rice from Chhattīsgarh; and hardware from Bhandāra and

the Nerbudda Districts. Except in times of depression produced by the foreign struggles or internal commotions of the State, the general tendency of trade under the Marāthās was to increase; but there were three prominent causes at work to prevent the rapid development of commerce. The first was the difficult nature of the country and the wretched means of communication, impeding equally import and export. The second was the feeling of insecurity from the greed of the rulers of the State or their agents. Forced loans were frequently taken from wealthy merchants and bankers without any pretext whatever except that the State wanted money, with the full understanding on both sides that the amount was to be wholly or partially left unpaid; and the late Nāgpur rulers indulged in this species of plunder to a greater degree than almost any other native government. The result of the system was to make the merchant hoard his surplus wealth and secrete it in the form of bullion and jewels, instead of embarking it in profitable but visible mercantile investments. The third was the existence of certain regulations trammelling the free export of grain and the establishment of vicious systems of private monopolies and transit dues.

Development of commerce.

173. Up to and for some time after the construction of the railway, Nāgpur was not a trading centre of any importance; the cotton of the Nāgpur tahsīl mostly went to the great entrepôt of Hinganghāt, and that of the Kātol tahsil to Amraoti. At the time of the 30 years' settlement (1866-67) the District was in a very prosperous condition owing to the high prices of cotton produced by the American War; Mr. M. Low, the Deputy Commissioner, estimated the value of gold bullion imported in that year at Rs. 40 lakhs and of silver at Rs. 10 lakhs. But conditions were abnormal and the successful agriculturist had little idea of investing his savings in anything but ornaments. The policy of road-making initiated by Sir R. Temple in 1862, the opening of

the railway to Nāgpur in 1867, the rise of the cotton industry ten years later, the simultaneous opening out of markets in other parts of India, the further extensions of the Chhattisgarh line in 1882, and of the Bengal-Nāgpur railway in 1889 have all contributed to the enormous increase in trade which has been a feature of the last forty years. Up till 1882 the exports from Nāgpur station included the whole of the produce brought by cart from Bhandāra, Bālāghāt and Chhattīsgarh. The following statement shows the increase of trade in the staple exports, the first two lines including the produce brought by cart from Chhattīsgarh.[1]

Period.	Grain & oilseeds. Maunds.	Raw Cotton. Maunds.
1870	299,000	3,000
1871-75 (average)	619,000	1,000
1885-89 (average)	967,000	13,000
1890	839,000	13,000
1902-06 (average)	837,000	606,000

The principal feature in the returns is the enormous increase in the export of raw cotton, irrespective of the facts that a considerable part of the cotton produced in the District goes to Amraoti and Wardhā by road and that in the last twenty years a large indigenous demand has arisen from the Nāgpur mills.

Principal exports and imports.

174. The statements on the next pages show the exports and imports from stations of the Nāgpur District for the years 1902-06, with values calculated according to the rates given in the Provincial trade returns. They do not by any means accurately represent the trade of the District. During the period to which they refer, a large proportion of the produce of Seonī and Chhindwāra was brought by road to Kamptee and Nāgpur, including practi-

[1] Except the last line, this statement is reproduced from Mr. Craddock's Settlement Report, page 104.

Exports. Figures represent thousands.

Articles.	1902		1903.		1904.		1905.		1906.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value	Quantity.	Value.	Quantity	Value.
	Mds.	Rs.	Mds.	Rs.	Mds.	Rs.	Mds.	Rs.	Mds.	Rs.
Raw cotton	467	8,105	547	9,497	610	13,272	825	14,338	583	11,044
Cotton manufactures	202	7,589	192	7,279	187	6,606	195	7,241	173	6,465
Wheat	336	950	435	1,141	265	746	275	809	42	149
Other grains and pulses	118	282	64	157	43	109	194	485	136	455
Hides and skins	19	323	18	375	21	607	28	811	26	767
Hemp and jute	27	215	29	207	35	261	37	296	24	231
Metals	2,503	613	2,717	509	1,887	526	3,333	630	4,472	733
Oil-seeds	441	1,499	404	903	463	878	628	1,169	340	674
Wood	72	168	62	144	72	170	69	158	68	151
Other articles (value known)	130	1,504	256	1,515	268	1,814	301	1,680	283	1,765
All other articles (value not known) ...	...	...	...	...	16	...	139	...	182	...
Total ...	4,315	21,248	4,724	21,727	3,867	24,989	6,024	27,617	6,329	22,434

Imports—Figures represent thousands

Articles.	1902.		1903.		1904.		1905		1906.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Mds.	Rs.	Mds.	Rs.	Mds.	Rs.	Mds.	Rs.	Mds.	Rs.
Coal and coke	1,106	277	1,132	283	903	226	1,140	285	1,313	328
Cotton manufactures	58	3,240	63	3,473	63	3,494	63	3,753	64	3,671
Grain and pulse	1,053	3,239	978	2,779	1,003	3,257	971	3,321	1,122	3,661
Hemp and jute	34	284	23	198	24	230	36	371	16	182
Metals	137	1,490	101	1,045	112	1,515	120	1,322	115	1,381
Kerosine oil	101	454	103	480	116	534	116	530	100	463
Cocoanuts	22	187	39	305	41	488	29	343	17	205
Salt	186	697	171	566	180	585	174	489	158	416
Sugar	175	1,753	192	1,477	207	2,039	214	2,063	184	1,506
Spices	41	464	32	414	45	542	37	544	51	716
Tobacco	14	73	15	132	16	226	24	325	22	266
Fodder	12	24	9	15	18	24	5	10	10	16
Wood	99	215	121	355	151	305	138	283	141	201
Other articles (value known)	561	6,675	571	7,537	617	8,731	746	9,589	822	11,519
All other articles (value unknown) ...	...	...	...	...	2	...	5	...	5	...
Total ..	3,599	19,072	3,550	19,059	3,498	22,196	3,818	23,228	4,140	24,531

cally all the cotton grown in the Sausar tahsīl. On the other hand, as already stated, the Kātol tahsīl sends a good deal of its cotton outside the District. Grain and oilseeds are still brought from Bhandāra in carts along the Great Eastern Road, and timber both from the Bhandāra and Chānda forests. During the last five years the exports of the District have averaged about 5 million maunds, of the value of Rs. 236 lakhs, and the imports $3\frac{3}{4}$ million maunds of the value of Rs. 216 lakhs. The exports of raw cotton are now more than 600,000 maunds as against only 13,000 in 1890. Those of wheat and oilseeds have declined from 839,000 to 726,000 maunds; the imports of cotton goods are 62,000 maunds as against 40,000 in 1890 and those of salt 174,000 maunds as against 160,000. The trade in metals is a new development arising from the manganese industry. During the last five years the exports of metals have averaged nearly three million maunds or three-fifths of the total bulk of exports.

Cotton.

175. The exports of raw cotton during the last five years have averaged 600,000 maunds or 120,000 bales of 400 lbs; their value being Rs. 113 lakhs or $3\frac{3}{4}$ annas per pound. This is roughly equivalent to the crop on 450,000 acres. It is sufficient to produce 190 million yards of cloth of the width of 35 inches. As already seen nearly the whole of this trade has developed since 1890. The exports of Indian yarn have been about 120,000 maunds of the value of Rs. 36 lakhs or at the rate of 6 annas per pound, and of piece-goods 70,000 maunds, value Rs. 34 lakhs, or $9\frac{3}{4}$ annas per pound. Both these staples have shown a tendency to decline in the last few years. Raw cotton is sent mainly to Europe and is largely sold to the Continental mills. Yarn is sold in the Central Provinces and Bengal, while the cotton cloth of the Empress mills is sent all over India and in small quantities to China, Japan and Burma; the Swadeśhi mills find their best market in Chhattīsgarh. Thread of counts

of12's to 20's and cloth of 20's to 30's is most exported. Silk-bordered hand-woven cloths are sent from Nāgpur and Umrer to other Districts of the Province and to Bombay, Berār and Hyderābād, the chief buyers being Marāthā Brāhmans. It is estimated that the annual production of these cloths may be worth about five lakhs.

Oilseeds.

176. Oilseeds are the second staple in importance and the annual exports are about 450,000 maunds of the value of 10 lakhs. Of this total about 260,000 maunds of the value of $3\frac{1}{2}$ lakhs or R. 1-6 a maund were of cotton-seed. The oilseed is used as a fodder for cattle and for train oil. An excellent edible oil can be manufactured from it and used as a substitute for *ghī* or clarified butter; and in Europe for olive oil. The refuse is a valuable manure in America but is not so used in India. Cotton oil is employed locally for factory-engines and is applied to the hair; and the oil-cake is fed to cattle. The exports of linseed are about 86,000 maunds at Rs. 4-8 a maund, and those of til seed are 31,000 maunds at Rs. 4-7 a maund. Mahuā oil is now also exported, the oil being used for mixing with *ghī* and for lighting.

Other exports.

177. The exports of wheat are 271,000 maunds valued at more than $7\frac{1}{2}$ lakhs or about Rs. 3 per maund. But taking all grains together, the imports now largely exceed the exports, and even in the case of wheat the net exports are very small. The exports of manganese have averaged 106,000 tons for the last five years, the maximum figure being reached in 1906 with 164,000 tons. The average value is shown as Rs. 3·61 lakhs or about Rs. 3-8 a ton, but the selling price on the railway has risen to Rs. 20 a ton and Rs. 15 would perhaps be a fair average, though the price fell largely in 1907. At this rate the average exports would be worth 16 lakhs. Hides and skins are exported to the value of nearly 6 lakhs a year, the Kamptee hide-market being the principal centre of trade. The average selling price is about Rs. 31

for cattle-hides per maund and Rs. 27 for buffaloes, and 10 of the former and 6 to 7 of the latter go to a maund.

Of fresh fruits oranges are an important product and are sent to Bombay, Hyderābād and other parts of India. Very few go to Europe, either because no effort has been made to develop the trade, or perhaps, because the Nāgpur orange is too soft and juicy to stand a long voyage. Small plums (*Zizyphus jujuba*) are sent to Bombay, and the betel-leaves of the Rāmtek tahsīl are exported to Northern India.

Staple imports.

178. The imports of cotton manufactures for the last five years have averaged about 35 lakhs, or Rs. 4-11 per head of population. Of these more than three-fourths are English yarn and piece-goods. The finer kinds of English cloth come from Calcutta as they are commonly worn in Bengal and the coarse ones from Bombay. Shirting cloth at 4 annas a yard and fine longcloth of counts of 150 to 200 are imported in large quantities. Ordinary woollen goods come from England and shawls from Kashmīr. The imports of metals are 117,000 maunds of the value of Rs. 13½ lakhs. They consist mainly of brass and copper in sheets and of iron goods. Enamel ware is also imported in considerable quantities, while aluminium is now coming into use among natives for cooking-pots and German silver for plates and dishes.

The imports of salt are 174,000 maunds, value Rs. 5½ lakhs, Bombay sea-salt being generally sold, while a little is brought from the salt-hills of the Punjab. The consumption of salt per head of population is from 17 to 19 lbs., as against the Provincial average of 13 lbs. in 1903, and that of sugar is more than 20 lbs. The imports of sugar are worth nearly 18 lakhs annually, of which about half is *gur* or unrefined sugar. Sugar is brought from the Mauritius and Germany and from Northern India, and Mauritius sugar is sometimes mixed with the juice of sugarcane and sold as the Indian article. *Gur* comes from Northern India and from

Bārsi and Sholāpur. The imports of kerosine oil average nearly 5 lakhs a year. Burma oil is the cheapest and is used by the lower classes, but it gives off much smoke, and the American product is more popular.

179. The total imports of grain and pulse are about a million maunds, as against exports of less than half a million, and their value is about $32\frac{1}{2}$ lakhs. More than half the total bulk is rice, which comes from Bhandāra, Raipur and Bengal. Wheat is brought from Chhindwāra and Seonī, and even juār, the staple food-crop of the District, is now imported. In 1907 it was brought from Cawnpore.

Grain.

180. Cocoanuts are brought from Bombay, the imports being 29,000 maunds, value Rs. 3 lakhs annually. The cocoanut is the most common religious offering and is said to have originally had the idea of substitution for a human victim. Areca nuts come from Ratnāgiri in Bombay and from Orissa, cardamoms from Malabār, cloves from Zanzibar, black pepper from Zanzibar and Malabār, and chillies and red pepper from Sholāpur, Calcutta and Delhi. The imports of tobacco are about 20,000 maunds annually, of the value of about $2\frac{1}{2}$ lakhs. Trichinopoly cheroots and cheap American cigarettes are much smoked. *Birīs* or native leaf-cigarettes are brought from Tirorā in Bhandāra. All dyes come from Germany. Cheap umbrellas and watches are made in Japan, and glass-ware is brought from Austria, Germany and Japan. Japanese and Swedish matches are generally used. Boots and shoes made in the English fashion are brought from Bombay and Cawnpore, and are now also made locally.

Minor imports.

181. The exports have averaged about Rs. 31 per head of population for the last five years, as against Rs. 38 in Wardhā. The proper valuation of manganese would however increase the Nāgpur figure. The imports are nearly Rs. 29 per head o

Balance of trade.

population. The excess of exports over imports was Rs. 44 lakhs in 1905, but in 1906 the imports were the larger by Rs. 21 lakhs.

182. Practically all the exports of the District are sent from Nāgpur and Kamptee, except the manganese of which the larger part goes from Thārsa. Exports from Nāgpur were 1½ million maunds in 1902 and 2½ millions in 1905. Kamptee sent away about 2 million maunds in 1905, but the bulk of this was probably manganese. More than four-fifths of the imports come to Nāgpur and nearly all the remainder to Kamptee.

Railway stations.

COMMUNICATIONS.

(CAPTAIN OLDHAM, R.E.)

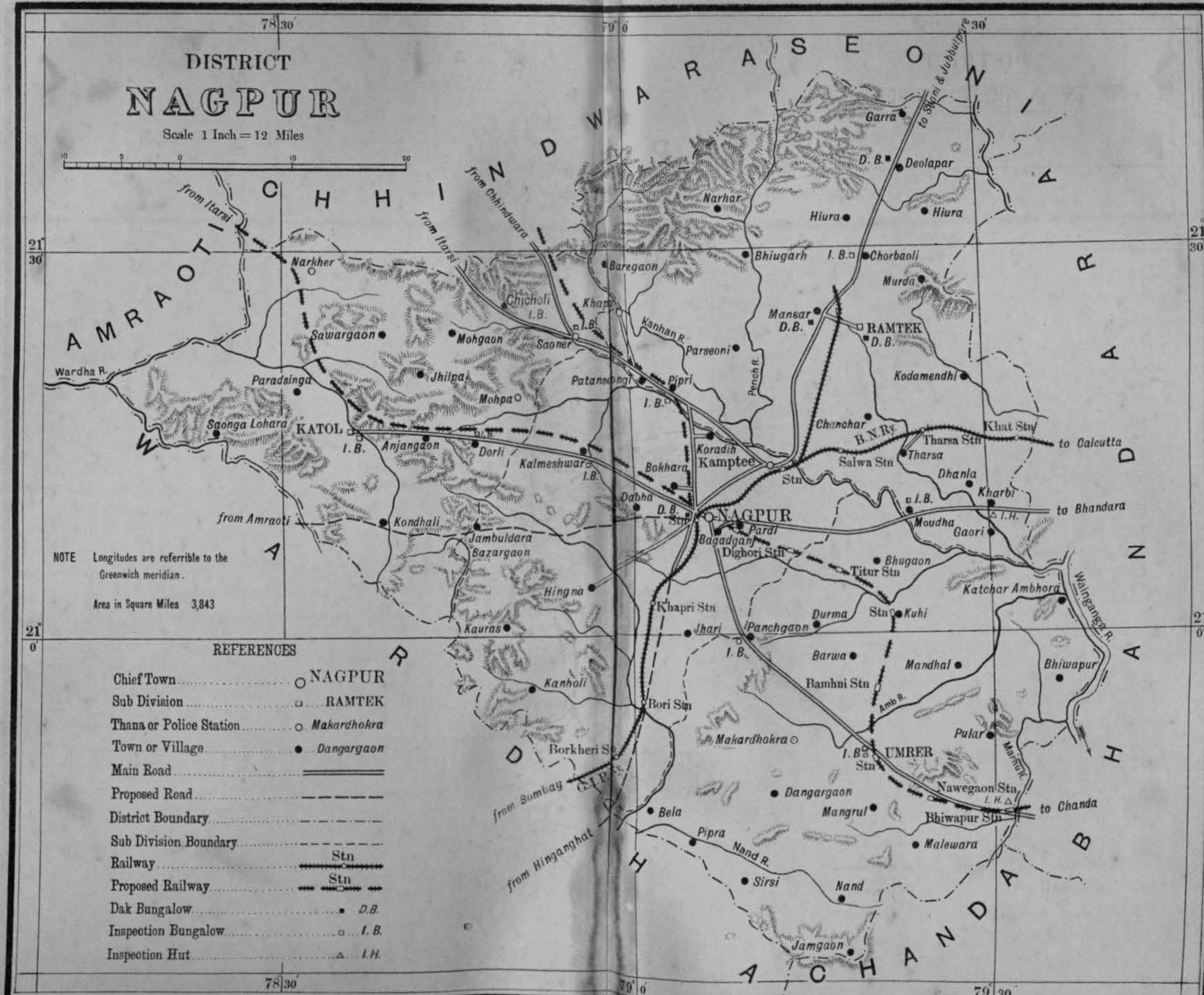
183. Nāgpur is the terminus of two lines of rail, the Bhusāwal branch of the Great Indian Peninsula line coming from Bombay, and the Bengāl-Nāgpur Railway from Calcutta.

Railways.

The Great Indian Peninsula line was completed in the year 1867, and connects Nāgpur through Bhusāwal with Bombay. Its length in Nāgpur District is 27 miles with the stations of Borkherī, Borī, Khāpri and Nāgpur.

The present Bengal-Nāgpur Railway was originally constructed on the metre-gauge in the year 1881 as the Chhattīsgarh State Railway. In 1888 the line was converted, under the auspices of the Bengal-Nāgpur Company, to the broad-gauge and carried through to Calcutta. Its length in Nāgpur District is 34 miles, and it has stations at Nāgpur, Mehdibāg, Kamptee, Sālwa, Thārsa and Khāt.

At present these lines have a joint station at Nāgpur, which is neither commodious nor conveniently located. A scheme is under consideration for the construction of a large and spacious Station more in accordance with the requirements of a populous city and an important railway centre.



Prepared specially for the Superintendent of Gazetteer C. P. from an original supplied by him.

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REG. NO. 1465 E 08. – 450.

184. A light railway 2′-6″ gauge is under construction from Nāgpur to Chānda by the Bengal-Nāgpur Railway. The section in this District from Nāgpur to Bhiwāpur has just been completed (December 1907). The length of this line is 50 miles, and there will be stations at Itwāri, Pārdi, Dighorī, Titur, Kuhī, Bamhnī, Umrer, Nawegaon and Bhiwāpur.

New lines under construction and proposed.

A broad-gauge line is under construction from Nāgpur to Rāmtek. Near Mansar the line bifurcates, one branch leading to Rāmtek on the east, while the other, trending to the west, follows a difficult line among the Mansar hills to gain access to the extensive manganese mines in this neighbourhood. This line will, it is understood, be extended to the new manganese mines to the west of Chorbaolī, some six miles to the north. The eastern portion of the District is thus served fairly well by the lines already mentioned as open or under construction. The west and north-west is however entirely devoid of railway communication; although this tract comprises more than half the total area of the District. The reason for this is certainly not from want of proposals and projects; but rather perhaps owing to their multiplicity. At last however a decision has been arrived at on the conflicting proposals, and two lines are, it is understood, to be constructed at an early date. The most important of these is the Nāgpur-Itārsi line to be made on the broad-gauge by the Great Indian Peninsula Railway. The alignment will be from Nāgpur by Kalmeshwar, Kātol and Narkher to Pāndhurnā in Chhindwāra District, and so by Betūl to Itārsi. This line will be of very great importance to Nāgpur, and among other advantages will open up the rich cotton tracts round Kātol. A branch line to Amraoti, taking off from Narkher through Warud in Berār is a project that, though not yet sanctioned, seems likely to be carried out in the future.

A narrow 2'-6" gauge from Nāgpur to Chhindwāra is also sanctioned. The proposed alignment is from Nāgpur *via* Pātansaongī, Saoner, and Kelod in Nāgpur District to Chhindwāra *via* Rāmākonā. The line will give an outlet to the numerous manganese mines in this tract, and will also directly connect the Chhindwāra coal-fields with Nāgpur.

Thārsa Tramway.

185. A private steam tramway has been constructed by the Central India Mining Company to carry the ore from the mines near Rāmtek to the Bengal-Nāgpur Railway line at Thārsa station. This line is a private concern, and is intended for the carriage of minerals only. It is on the 2 feet gauge and steam traction is employed. Its length is about 14 miles.

Roads.

186. There are five main metalled roads in the District, radiating from Nāgpur like the spokes of a wheel. The Great Northern Road which leads to Jubbulpore through Kamptee and Seonī is the finest road in the Province. It is the only one in fact which is bridged throughout its length (with the exception of the Nerbudda river). The section in Nāgpur leads through Kamptee and Mansar for a length of 46½ miles to the borders of Seonī District. There is a magnificent bridge over the Kanhān river near Kamptee, perhaps the finest masonry bridge in India. It consists of 12 spans of 80 feet elliptical arches. The work was completed at a cost of Rs. 12½ lakhs in the year 1873, the Engineers in charge being Mr. F. L. O'Callaghan and Mr. G. W. MacGeorge. When this bridge was made it was intended to carry the metre-gauge railway line to Chhattisgarh over it, alongside the road, but subsequently a second railway bridge was constructed. The traffic borne by this highway is very heavy, timber and other forest produce being the principal items.

The construction of the Rāmtek railway has now diverted most of the manganese traffic; but up to the end of the present year (1907) the whole output of the manganese

mines found its way to the railway at Kamptee by this road. The resulting traffic was more than any surface could stand, and very severe damage has been caused to it. This has necessitated a large outlay in special repairs which are now in progress. A branch road takes off from the Great Northern Road at Kamptee and leads to Dahegaon on the Nāgpur-Chhindwāra road at a distance of 10 miles. The Koilār river is crossed by a causeway in the dry season and by a boat ferry in the rains. Another branch road takes off at Mansar in the 25th mile, leading for about 5 miles to the important Hindu religious centre and tahsīl town of Rāmtek.

North-Western Road.

187. The North-Western road forms the first part of two main highways, the Nāgpur-Itārsi road, and the Nāgpur-Chhindwāra road, which bifurcate at Saoner in the 23rd mile from Nāgpur. As far as Saoner the road is metalled and provided with culverts and causeways. Beyond Saoner the Itārsi road (locally called the Saoner-Multai road) is now being metalled and provided with causeways as far as the border. The section beyond Saoner on the Chhindwāra road is metalled, but causeways and culverts have to be provided. Sixteen miles from Nāgpur a branch road takes off from Pātansaongī to Khāpa at a distance of seven miles. Both the main and Khāpa branch roads have suffered severely from the very heavy manganese traffic. The construction of the Chhindwāra narrow-gauge line by Pātansaongī and Saoner will relieve the road of this excessive wear and tear.

Other roads.

188. The road to Chānda leads through Umrer and Bhiwāpur. As far as Umrer in the 30th mile this road is metalled and bridged throughout with the exception of two rivers in the 8th and 27th miles respectively, where the crossings are provided with raised causeways. The Kātol road leads from Nāgpur through Kalmeshwar to its present terminus at Kātol. Beyond Kalmeshwar it is unbridged, and traffic in the rains suffers much inconvenience. But causeways are

now being provided. The Great Eastern Road leads through Bhandāra and Chhattīsgarh to Sambalpur in Orissa. The road is metalled and bridged throughout the section in Nāgpur District except for the Kanhān river in the 21st mile. This river is crossed by a temporary bridge in the dry season and by a ferry in the rains. Near Pārdi, in the 5th mile, the road is joined by a branch from the Bagadganj, a suburb of Nāgpur city. A first-class road metalled and bridged throughout is under construction from Nāgpur to Hingnā, a length of 7 miles. This is in continuation of the Nāgpur-Ambājheri road already constructed.

Proposed roads.

189. It will be seen that among the existing roads there is none leading south or south-west, and the result is that there is no good road communication with the adjacent District of Wardhā nor with the Berārs. This is an obvious want, and two roads are contemplated. One is to reconstruct the old road to the south through Borī which has been allowed to sink into complete disrepair. The other is for the construction of a first-class road metalled and bridged throughout from Nāgpur to Amraoti the capital of Berār. The line to be followed will be the old trade route through Bazārgaon, Kondhāli and Bishnūr. In addition to these two roads a scheme for no less than 27 other roads aggregating about 320 miles has been prepared. The necessary surveys have been made and estimates drawn up. The work will be gradually carried out from Provincial and District Funds, and in the event of famine a large programme of useful work is immediately available for labourers.

CHAPTER VI.

FORESTS AND MINERALS.

FORESTS.

Government forests.

190. The Government forests cover an area of 516 square miles or 13 per cent. of that of the District. They comprise two main tracts; the first is situated on the foot hills of the Sātpurās on both sides of the Pench river, in Rāmtek tahsīl, and is divided into the east and west Pench ranges with a total area of 343 square miles, while the second consists of a series of scattered blocks extending from the west of Kātol to the south and east of Umrer, and covers 173 square miles, being divided into the Umrer and Kondhāli ranges. The rock-formation of the Pench valley forests is almost entirely granite, and that of the two smaller ranges, trap. Small teak is scattered through the Pench valley forests, mixed with bamboos in the north along the hills of the west Pench range. The Kondhāli forests contain small but good teak in the central blocks from Kātol to the railway, but poor mixed coppices to the north, while in Umrer many of the blocks produce little but grass, brushwood and a scrubby growth of *palās* (*Butea frondosa*). *Sāj* (*Terminalia tomentosa*) is common in all forests, and the other most important trees are *tinsā* (*Ougeinia dalbergioides*), *tendū* (*Diospyros melanoxylon*), *lendia* (*Lagerstrœmia parviflora*), and *dhaurā* (*Anogeissus latifolia*), mixed with the inferior species prevailing in mixed forests. The isolated coppices of the Umrer and Kondhāli ranges have been much cut over and now contain little or no timber of any size. The Pench forests contain some areas which have been completely conserved for many years, but these are still so inaccessible that Government is easily undersold by the owners of private forests. Working-plans have now been applied to the whole area with the exception of some scattered stretches

of grazing land, and the ranges are divided into 30 coupes, one of which is cut over annually. For many years the coupes will yield little but fuel and ill-grown timber, but their present annual capacities, if fully worked up to, are estimated as representing a money value of about half a lakh of rupees or at the rate of Rs. 1000 a square mile (or $1\frac{1}{2}$ annas per acre). There are also fodder reserves with a total area of about 24,000 acres, which in normal years are let on lease. All forest produce is disposed of by license or contract.

Statistics of revenue.

191. The following statement shows the revenue under the principal heads in different years :—

Year.	Timber.	Fuel.	Grazing & grass.
	Rs.	Rs.	Rs.
1890-91	5,000	5,000	23,000
1902-03	9,000	19,000	22,000
1904-05	10,000	17,000	28,000
1905-06	12,000	18,000	31,000
1906-07	24,000	17,000	38,000

The demand for timber and fuel is now very active owing to the increased number of factories and mills. It is probable that about 150,000 cattle now enter the forests annually for grazing purposes. The following statement shows the revenue and expenditure of the Forest Department in different years :—

Year.	Revenue. Rs.	Expenditure. Rs.	Surplus. Rs.
1890-91	43,000	23,000	20,000
1902-03	58,000	35,000	23,000
1904-05	66,000	38,000	28,000
1905-06	74,000	27,000	47,000
1906-07	92,000	38,000	54,000

Special measures for protection from fire were extended to about 260 square miles in 1906-07 at a cost of nearly Rs. 3000 or Rs. 11 per square mile. In this year the forest staff comprised a Deputy Conservator, three Rangers, three Deputy Rangers, 7 Foresters and 100 Forest Guards.

192. In addition to the Government reserves the District has 418 square miles of private forests, including 182 miles of tree forest and 236 of scrub jungle and grass. The total woodland area is thus 934 square miles or 24 per cent. of that of the District, a larger proportion than one would have been inclined to suppose. The central and southern portions of Umrer and a part of Nāgpur are very bare of trees, but the remainder of the District and especially Kātol is well wooded. There are some good private teak forests on the Kauras plateau at Suardarā in north Bhiugarh and in the border tracts of the Belā and Girar parganas, and some fair mixed forest on the northern hills of Rāmtek and in a few localities near Kātol. The other private forests are situated on the northern hills of Kātol, the ranges near Pārseonī and Mansar, the Makardhokrā ridge lands in Umrer and the country just west of Nāgpur. In these tracts the growth of timber is very poor, but there are some fine grass reserves which are a source of great profit to their proprietors. Fuel is also abundant and now commands a very good price. A certain proportion of the forest land is culturable and since Mr.Craddock's settlement its area has decreased by 71 square miles. At settlement the income from private forests was estimated at Rs. 31,000 or an anna and a half per acre.

Private forests.

193. Of a length of 252 miles on 19 roads in charge of the Public Works Department, 78 miles have established avenues and 53 miles run through forest where they are not required. A length of 131 miles is thus provided for. Of the remainder 75 miles have partial or incomplete avenues and 46 miles are without them. The principal established avenues are for 23 miles on the Great Northern Road, 16 miles on the Great Eastern Road, 16 miles on the Umrer road, five on the Kātol and three on the Chhindwāra road. The annual expenditure of the Department is from three to four thousand rupees, and almost the whole of this is

Roadside avenues.

spent on nurseries and maintenance and on filling up gaps in existing avenues, so that practically no fresh plantation is possible. In order to keep up a steady supply of plants, a total of fifteen nurseries are maintained on a modest scale at convenient centres. A scheme for the completion of the avenue along the whole length of the Great Northern Road has now been projected. The District has seven military camping-grounds at Mahālgaon, Māhoda, Indorā, Mansar, Deolāpār, Korādi and Piprī. These are being provided with groves, and more than 1500 saplings were put in during 1907. The District Council have charge of eight roads with a total length of 164 miles. Of these, 31 miles have incomplete avenues and 12 miles do not require planting. The existing avenues are on the southern road through Tākalghāt, the Nāgpur-Kamptee road through Karamnā, and the Dumri-Yerkherā and Borī-Umrer roads. The Council spend about Rs. 1800 annually on maintaining and completing the avenues on these roads, and maintaining nurseries at suitable centres. It has also undertaken to plant groves on seven camping-grounds and about 40 market places. Roadside arboriculture is conducted by the sub-overseers attached to Local Boards, while the groves are left to members of the Boards.

The trees which commonly constitute the avenues are *babūl* (*Acacia arabica*), *chīchwa* (*Albizzia procera*), *nīm* (*Melia indica*), *bakain* (*Melia Azadirachta*), *pākhar* (*Ficus infectoria*), banyan, mahuā and tamarind. In future banyan, mahuā and mango, as the best shade-giving trees will usually be planted, trees being provided in the new avenues at a distance of 50 feet apart. The station of Nāgpur has also 15 roads of short lengths which are being planted with avenues by the Civil Station Committee. A large number of cork trees (*Millingtonia hortensis*) have formerly been planted on these roads, and this tree is not suitable for avenues as it is liable to rapid decay and is easily uprooted. The existing trees have consequently been pollard-

ed at a height of 20 feet. Other existing trees, which are considered unsuitable, are teak and gold *mohur* (*Poinciana regia*). The saplings are now provided with metal tree-guards, which are neat and ornamental, and can be removed from one tree to another as required.

MINERALS.

(L. L. FERMOR.)

List of mineral products.

194. The following economically valuable minerals and mineral substances have been found in the Nāgpur District :—

1. Building stone.
2. Coal.
3. Copper-ore.
4. Gold.
5. Iron-ore.
6. Lead-ore.
7. Limestone.
8. Manganese-ore.
9. Mica.
10. Ornamental stones and gems.
11. Road metal.
12. Wolfram.

Building stone.

195. From the quarries at Kamptee and Silewāra a very good quality sandstone has long been quarried. It has been used in the construction of buildings and bridges, a fine example of the latter being the handsome bridge over the Kanhān at Kamptee. It is of fine grain and eminently suitable for carving, and many temples are to be seen throughout the District constructed of this stone and elegantly carved. In the northern parts of the District near Chorbaolī and Bāregaon there is a large variety of crystalline limestones, some of which would probably make fine marbles. The Deccan Trap also forms an excellent building material and is quarried for this purpose at the foot of Sītābaldī Hill. The fort on the top of this hill is largely built of basalt.

Another stone that has been extensively used is the quartzite, often slightly micaceous, forming the Rāmtek range of hills. It is probably this stone that has been used in the construction of many of the Ambāla temples, of the steps leading up from these to Rāmtek Fort, and of the Jain temple situated on the north slope of Rāmtek Hill.

Indications of coal and copper-ore.

196. It might be thought from the presence of the Gondwāna series in this District that coal ought to be found. Blanford, however, was unable to trace in them any indications of the presence of coal, and thought it unlikely that any would be found[1].

Ores of copper have never been recorded as occurring in this District. In 1904, however, I found that both erubescite and chalcopyrite occur in small quantity in a basic dyke-like run of rock at Mahāli, about 4 miles north-east of Pārseonī. The quantity, however, was very small and a sample I took assayed only a half per cent. of copper. During the construction by the Central India Mining Company of the mining tramway from Wāregaon to Mānegaon, some copper pyrites in a quartzose matrix were exposed in a cutting near Māndri. On investigation, however, it was found that the mineral did not occur in quantity.

Iron and lead.

197. No iron-ore deposits of any importance seem to have been found in this District. As a continuation of the hill at Mahāli upon which the copper-ore is found, there is a low ridge of magnetite-quartz-rock, pieces of which when broken off exhibit strong polarity. In one place in the rock I found two magnetic poles, one north and the other south, situated about 8 inches from each other.

One occurrence is known of lead-ore in this District, namely at Nimbhā, about 17 miles north of Nāgpur. Here

[1] Rec. Geol. Surv. Ind., I, p. 26 (1868).

Captain Jenkins found loose boulders of galena on some small hills.[1]

Limestone.

198. There are in Nāgpur limestones belonging to rocks of two different ages. One of these is the Lametā limestone found at Kelod and Chicholī, and the other the crystalline limestones found in some abundance near Korādi, Bāregaon and other places in the north-eastern corner of the District. It would probably be found on investigation, however, that the larger portion of the limestones of these two ages is too impure to be used as a source of lime. But sufficiently pure examples could probably be found in some places amongst the crystalline limestones. The requirements of the District in lime are said to be met by burning *kankar*.

Manganese.

199. Manganese-ores occur in such abundance and are worked to such a large extent that a considerable space must be devoted to their consideration. The District contains over 30 known manganese-ore deposits, of which about 20 have yielded ore fit for export purposes. Voysey in 1833 described the manganese-ore in the Pench river at Pārseonī, while Captain Jenkins in the same year, besides this occurrence, recorded a similar deposit of manganese-ore in crystalline limestone at a place four miles north of Kumhāri; this was probably the Jūnewāni deposit. In 1859, Lieutenant Oakes brought to notice the Mansar deposit described below; and then W. T. Blanford in 1872 discovered manganese-ore at Kodegaon. Nearly thirty years later Messrs. W. H. Clark and H. Dodd of the Vizianagram Mining Company visited the District and, following up the references in the first edition of the Manual of geology visited Mansar and Kodegaon, and whilst prospecting in the neighbourhood discovered the Gumgaon, Rāmdongri, Kāndri, Beldongri and other deposits. The Central Provinces Prospecting Syndicate which was formed to develop these deposits produced over 35,000 tons in the

[1] Asiatic Researches, XVIII, p. 198.

first year's work (1900). Since then many other deposits have been discovered and opened up by various people. The total production for 1906 was about 146,000 tons or about an eighth of the world's total output. The total production from 1900 to 1906 is about 600,000 tons. The following is a list of the deposits known to occur; the holders of licenses or mining leases for the deposits are shown in footnotes:—

1 Kodegaon (*a*); 2 Gumgaon (*b*); 3 Rāmdongrī (*b*); 4 Risāra; 5 Nāndgondi; 6 Sītāgondi; 7 Kāndri (*b*); 8 Mansar (*b*); 9 Mansar Extension (*c*); 10 Pārsorā (*c*); 11 Bordā (*d*); 12 Pārseoni and Bansinghī (*d*); 13 Dumrī (*d*); 14 Sātak (*b*,*c*); 15 Beldongrī (*b*); 16 Nagardhan (*c*); 17 Nandāpuri (*c*); 18 Lohdongrī (*b*); 19 Kachurwāhi (*c*); 20 Wāregaon (*c*); 21 Khandāla (*c*); 22 Māndri (*c*); 22 (*a*) Panchāla (*c*); 23 Mānegaon (*c*); 24 Guguldoh (*e*); 25 Bhandārbori (*e*); 26 Mohgaon; 27 Pāli (*c*); 28 Pench River Gokula; 29 Māndvi Bīr (*d*); 30 Jūnewāni (*d*); 31 Jūnapāni (*d*).

Of these deposits Nos. 26 to 31 are characterised by a 'country' of crystalline limestone in which the manganese ore occurs as bands of nodules, piedmontite being also usually present. Such deposits are not usually of any great economic value, but an exception seems to be Jūnapāni, where there is said to be a regular bed of ore. Nos. 11, 13 and 16 are only occurrences of pebbles and fragments of ore, which have not been found *in situ*. The remaining deposits occur as lenticular masses and bands in the Archaean quartzites, schists and gneisses and appear to have been formed, at least in part, by the chemical alteration of the rocks of the gondite series (see para. 15), and only the important ones can be noticed below.

(*a*) Indian Manganese Co., (*b*) Central Provinces Prospecting Syndicate, (*c*) Central India Mining Co., (*d*) Cooverji Bhoja, (*e*) Jessop & Co.

The samples taken by me were analysed at the Imperial Institute. The mean of 26 analyses of samples is:—

Manganese	51·36
Iron	6·45
Silica	7·07
Phosphorus	0·115
Moisture	0·49

The inclusion of analyses of samples from Kāndri and Mansar would somewhat raise the average percentage of manganese. These were not included in the mean of the analyses as only hand specimens were taken.[1]

[1] The following are descriptions of some of the deposits:—

(1) Kodegaon.—Near the west end of a range of quartzite and mica-quartz-schist hillocks, terminating near this village, are two apparently separate manganese-ore deposits. One is immediately to the north of the west end of these hillocks and is composed of a fine-grained psilomelane-braunite mixture, containing numerous bands and patches of quartzite and spessartiferous rock mixed up with the ore. The other deposit is situated ¼ mile south-west of the west end of these hillocks and originally cropped out as a small patch a few square feet in area.

(2) Gumgaon.—The ore-body forms the south side and top of a hill 100 feet high which strikes E. 10° N., the north side being formed of schistose micaceous quartzite separated from the ore by a band of decomposed felspathic mica-schist. The ore-body is seen for 1200 feet along the strike and is perhaps 300 feet wide, but a considerable portion of this, especially on its north side, consists of banded spessartite (Mn-garnet)—quartzrock (gondite) and white and grey quartzites, the garnets showing all stages of change into manganese-ore. The working on the face of this hill show that the ore-body is divided by large divisional planes parallel to the strike and dipping at 70° to vertical to the S. 10° W.

The south slopes of this hill are covered by a deposit of loose-ore, usually called *boulder* or *float-ore* in the Central Provinces; but as both these terms are misleading, it will be better to adopt the term *talus-ore*, though the pebbles of ore at many deposits do undoubtedly often appear to have been rounded by water-action.

(3) Rāmdongrī.—There are here three hills on which manganese-ores occur, and it is the disposition of these *ore-bodies* relative to the accompanying quartzites and gneisses which originally suggested the theory, now discarded, that these manganese-silicate rocks are of

Mica.

200. Pegmatite, the rock in which mica of commercial value is found, is of common occurrence, traversing the crystalline and metamorphic rocks. These pegmatites have, however, never been exploited for mica, and it has yet to be shown that there are any occurrences of pegmatite containing mica scales of any considerable size. The largest mica crystals I have seen were obtained in a pit dug near the Lohdongrī manganese-ore deposit, and consisted of muscovite up to 2 inches across.

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igneous origin. The *ore-body* forming the principal hill, on which a certain amount of work has been done has a total length of 2500 feet and a maximum width of 1500 feet (judging from outcrop exposures), while the hill rises to about 140 feet above the plain. A very large proportion, however, of this enormous mass of manganese-bearing rock still shows remains of the original spessartite-quartz-rock (gondite) which renders it quite unfit to be worked. The good ore seems to be confined to the south edge of the hill ; the talus-ore derived from this was being worked, the pits made often showing a depth of 10 to 12 feet of such loose ore with interstitial ferruginous clay. In such work every pebble has to be fractured to ensure the stacking of good quality ore. This same deposit is also the nidus of a new manganese-pyroxene (blanfordite) of remarkable pleochroism (carmine, blue, and lilac), while abundance of rhodonite is to be found in places.

(7) Kāndri.—This is probably the finest body of manganese-ore yet found in India ; it has been developed in most workmanlike fashion. It consists of a lenticular band of ore ½ mile long, curved into a horse-shoe shape, forming the backbone of two hills joined by a saddle. The south hill forming the E.-S.-E. arm of the horse-shoe is that on which most work has been done. The ore-band, as here exposed, varies from 70 to 100 feet in width, and, as seen in 1904, was a very fine quality throughout the 700 or 800 feet measured horizontally, along which it had been opened up. This ore is all very fine-grained, bright-grey and finely crystalline, some very hard and some—especially towards the middle of the deposit—somewhat softer ; on this portion of the deposit very little cleaning of the ore is required. The ore also shows beautiful grooving and slicken-siding parallel to the strike of the ore-body in the south hill. The 'country' consists of fine-grained gneisses, mica and talcose-schists dipping conformably with the ore-body, *i.e.*, towards the centre of the horse-shoe. The saddle connecting the south hill to the north shows a large amount of spessartite-quartz-rock (gondite), but in the north hill the ore-

201. The large variety of marbles that occur in the Archæan rocks of the north-eastern portion of the District have already been mentioned. In the gondite series a rock of not uncommon occurrence is rhodonite-rock, sometimes containing spessartite as well. In some countries rhodonite is used as an ornamental stone, table tops and small ornamental objects being constructed from it. The most famous locality for such rhodonite is the Ural Mountains. It has yet to be proved that sufficiently

Ornamental stones and gems.

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body again becomes workable. On the south and south-west slope of the south hill is a large amount of talus-ore up to 12 feet thick, which has to be removed before attacking the ore-body from this side. Such talus-ore is, however, often as profitable to work as ore *in situ*.

(8) Mansar.—This is the ore-deposit mentioned by Ball as situated 3 miles west of Rāmtek. The ore body occurs as a band, 50 to 60 feet thick, in mica-schists, and forms a curved south-east running ridge which dips steeply to the south-west side and rises to 350 feet above the plains at its highest point. It is traceable for about 1½ miles in all and is best along the highest parts of the ridge where an aerial ropeway and 3 gravity inclines have been constructed to bring down the ore. The ore is as usual a mixture of braunite and psilomelane very similar to that of Kāndri. Besides the large quantity of ore still *in situ* in the hill, a very large quantity of talus-ore has been excavated from the north slopes. In many parts of the deposit, spessartite and rhodonite are to be found, and at the south-east end, within Chārgaon village limits, in an excavation known as the 'Kamptee Lady' pit there is exposed a thickness of 9 feet of rock composed largely of beautiful orange and deep orange-red trapezohedral spessartite crystals, up to an inch in diameter, and set in a matrix, either of soft manganese-ore or of pink rhodonite, white barytes, and a green phosphate, probably a new species ; in the latter case it forms a most beautiful rock. This is the best locality yet found for good spessartite crystals.

An analysis by Mr. Mallet of a sample from this locality showed 54·66 per cent. Mn. and indicates a mixture of 60 per cent. of braunite with 40 per cent. of psilomelane.

(9) Mansar Extension.—This is simply a westward extension of the Mansar deposit, which has here dipped beneath the enclosing mica-schists. The back of the ore-body has been revealed by some shallow excavations.

large pieces of rhodonite are to be found in the Nāgpur District for use as table tops; but there is probably a considerable supply suitable for carving into small ornaments, or for use in inlaid work. The colour of the rhodonite is a beautiful rose-pink, often marked with black veins and spots due to alteration. It is sometimes spotted with orange, due to the inclusion of spessartite, the manganese-garnet.

Agates and chalcedony are probably to be found in the trappean portion of the District; these, when cut and polished, can be turned into ornamental objects of considerable beauty, as is so well seen at the Marble Rocks near Jubbulpore.

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(10) Pārsorā.—Probably the eastward extension of the Mansar-Chārgaon *ore-band* though there is half a mile of alluvial country between the two. The pits are in this alluvium and were partly filled with water so that but little could be seen; but, judging from the analysis of a piece of ore stacked here, the quality of the ore below is good, although high in iron.

(15) Beldongrī.—This is one of the best deposits, and is being worked by a quarry in the alluvium. The ore body has a steep dip to S. 10° E., except at the eastern end where it is towards the south-east. It is about 60 feet wide and has been exposed for a length of some 300 feet. Some of the ore is soft and dirty, some is psilomelane, and some the usual psilomelane-braunite mixture. The magnetic manganese vredenburgite was found.

(18) Lohdongrī.—The ore-deposit occurs as a low flat mound about 380 yards long and 200 broad by about 30 to 35 feet high, and consists of a mass of crumpled manganese-ore 'beds,' of which the total thickness may be about 60 feet. The crumpling is, of course, the cause of the wide outcrop. Almost the only material to be seen wherever the hillock has been quarried is manganese-ore, of which a large proportion is braunite, often coarsely crystalline. The quarry is connected by tram line to Kachurwāhi.

(19). Kachurwāhi.—This is a quarry in the alluvium about 1½ miles due east of Lohdongri. The ore-band has been exposed for about 100 yards, is about 80 feet wide and dips S. 10° E. at 60° to 65°. Layers of quartzite and other rocks are interbanded with the ore. This deposit contains the beautiful manganese-pyroxene, blanfordite, also found at Rāmdongrī. Octahedral braunite crystals, often twinned, are found in this quarry in a felspathic rock which is prob-

No gems have yet been recognised in this District, but it must not be overlooked that the manganese-garnet spessartite, so common in the gondite series, is sometimes used as a gem when obtained in clear crystals of an orange or red colour. In the manganese mines I have often found small crystals of the requisite beauty of colour and clearness for this purpose, but they have always been too small.

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ably intrusive in the ore-body. The quarry is connected by tram-line to Wāregaon.

(20). Wāregaon.—This is about 1 mile east of No. 19 and is connected by a 5½-mile tram-line to Thārsa station. The ore-deposit has here been worked out down to a depth of 40 feet, and as more water than can be controlled, except with very powerful pumps, now enters the pit, work has been abandoned. This deposit has, however, yielded a large quantity of ore.

(22). Māndri.—There are here, in a 'country' of quartzite and mica-schists, two roughly parallel bands of ore about 100 yards apart striking roughly east-south-east, with a steep dip to the south side. They are, however, very greatly contorted, and, together with the quartzites, often show slickensiding striations. The northern band was exposed for 300 yards with a width of 6-14 feet, while the southern band was 650 yards long and 24-40 feet wide. Both yield rather good soft ore, often somewhat spoilt by yellow garnet bands.

(23). Mānegaon.—The main ore-band is 1½ miles long with a curved strike averaging east and west, and at its west end is taken up *en échelon* by a subsidiary band. In places the band, which has a steep dip to the south side, is as much as 80 feet wide. Besides a fair quantity of good ore there is a notable quantity of beautiful pink rhodonite. Both this deposit and Māndri are connected to Wāregaon by a tramway that involves the crossing of the Sūr river, the total length of line being about 8 to 9 miles.

(24). Guguldoh.—At its east end, the Mānegaon ore-band apparently dives beneath a hill composed of quartzite and mica-schists, and the Guguldoh deposit is probably only a continuation of this band, which has here re-appeared at the surface and can be traced for another 1½ miles. This deposit crops out on top of a hill 250 feet high, where the ore-band is 15 to 40 feet wide. It is peculiar in that it consists largely of cavernous and botryoidal psilomelane, which has possibly been formed by surface action at the expense of the ordinary braunite-psilomelane ore, into which it will possibly pass in depth. A considerable amount of excavation has been carried out resulting in the despatch of a quantity of ore.

Road-metal.

202. Almost any of the older crystalline rocks of the District may be locally used as road metal; but the favourite materials seem to be the basalts and dolerites of the Deccan Trap series in the portions of the District on or near the Deccan Trap area, and quartzites or gneiss, and sometimes marble, in the Archæan areas.

Wolfram.

203. This valuable and comparatively rare mineral has recently been found by Mr. J. Kellerschon at Agargaon, but I do not know in what quantity.

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(27). Pāli.—At this locality there is a series of crystalline limestones which often contain abundance of piedmontite and sometimes spessartite. Nodules of manganese-ore often occur in strings in this limestone. There is also a black limestone which owes its colour to the secondary infiltration of manganese oxides. At one place a large number of irregular cavities have been formed in the limestone and subsequently filled with exceedingly beautiful radiated pyrolusite with largely mammillated concentric surfaces dividing the ore into concentric layers. This ore is of great purity and very free from iron as will be seen from the following analysis :—

Specimen No. 932.

Manganese	60·79
Iron	0·04
Silica	0·33
Phosphorus	0·004
Moisture	0·12
Manganese peroxide	95·57

Unfortunately it only occurs in irregular pockets, so that it would hardly pay to blast the hard limestone for it, unless a market could be found for it for decolorising glass; very high prices can be obtained for pyrolusite suitable for this purpose.

Nos. 29, 30, 31.—Māndvi Bir, Jūnewāni, and Jānapāni are all on the same band of rock running roughly east and west. In Nos. 29 and 30 the ore occurs as nodules and small lenticles in a crystalline limestone, which often contains piedmontite; and by the solution of the limestone by surface waters a residual deposit of nodules, in places several feet thick, has been left. At the Jūnapāni (the eastern) end of the band, however, there seems to be a definite band of manganese-ore which re-appears at the surface a little to the south, probably on account of a synclinal fold embracing both the ore band and the associated limestone.

CHAPTER VII.

FAMINE.

204. The earliest famine in the Nāgpur District of which record remains was that of 1818-19. The immediate cause was the failure of the monsoon followed by excessive rain in the cold weather. Acute distress and famine conditions prevailed, resulting in serious loss of life. Many of the poorer cultivators of Nāgpur are said to have sold their children into slavery. In 1825-26, according to oral tradition, famine attended with loss of life occurred in Nāgpur, and it is said that many people died after eating the cooked food doled out to them at the Rājā's palace. The cause of the famine was a deficiency of rainfall. Grain was sold at 6 seers a rupee. In November 1831 there were heavy falls of rain at the time when the autumn crops had been cut and gathered but had not been threshed and harvested. The grain was severely injured, while the continuous rains prevented the spring sowings and caused such seed as had been sown to rot in the ground. The remains of the spring harvest were finally destroyed by blight. The outturn of both harvests was very poor, and severe famine appears to have ensued for a period of 8 or 9 months. The price of grain rose to 8 seers to the rupee in April 1832. Distress was acute and was not alleviated by any special demand for labour, while starving refugees from Berār and Khāndesh flocked into the District. It was recorded that many people changed their caste to obtain food and parents sold their children for 10 lbs. of wheat. The death rate for the famine period was locally estimated at a fifth of the population. Cooked food was doled out by the Bhonsla administration at Nāgpur to 5000 people daily, and alms houses were established at central places. Grain was distributed without interest from granaries at Nāgpur, Chānda and Bhandāra.

Early famines.

The export of food stuffs was strictly forbidden, and a price was fixed for sale, pressure being directed to cause the holders of stocks of grain to retail them at fixed rates. In the city of Nāgpur 5000 persons are said to have died from want of food. On the whole, the Bhonsla administration did as much as any native government would consider its duty toward the relief of its distressed subjects, but it must be remembered that the country had just had the advantage of twelve years of British rule under the Regency of Sir Richard Jenkins, concluding in 1830, and the Marāthā officials who had acted under English officers were still carrying on the government according to the methods which they had then learnt. In 1868 the rains ended abruptly a month before time, but an opportune shower in September saved the situation over the greater part of the country. Only slight distress was experienced in the Nāgpur District.

The seasons from 1892 to 1896.

205. Abnormal rain fell in September and October 1892, and it was followed by excessive rainfall in the first three months of 1893 when 8½ inches were received as against an average of 1½. This caused rust in the wheat, but as the rain fell when the crops were ripening, the damage was not very serious and the wheat harvest was 75 per cent. of normal, while the autumn crops were excellent. In the autumn months of 1893, 16 inches of rain were received as against an average of 11 inches; the sowings of the spring crops were delayed and the seedlings swamped. The climatic conditions in the cold weather months were also unfavourable to these crops. The sky remained clouded and the atmosphere moist. Wheat and linseed were spoiled by rust and the pulses were destroyed by insects. Juār gave an outturn of 90 per cent., and linseed of only 68 per cent. The total outturn was 83 per cent. of normal. The year 1894-95 brought no return of prosperity. Excessive rain (21 inches as against 11 inches in an average year) fell in the autumn of 1894, causing great damage to the autumn crops and

greatly impeding the sowing and germination of the spring crops. Although the cold weather rainfall was normal, both the harvests were very poor. Juār gave an outturn of 45 per cent., cotton of 30 per cent., and linseed of 23 per cent., the average harvest being 54 per cent. of normal. It is noticeable that this was worse than the harvest of the following or famine year, 1896-97, when the outturn was 67 per cent. of normal. Although the poorer classes felt the want of food, the distress did not become general and the people had sufficient sustaining power to tide over the year. Famine conditions did not prevail in the District, but the people were distinctly impoverished. The birth-rate was normal at 35 in 1894, and 34 per mille of population in 1895; but the death-rate increased to 38½ in 1894 and 35 in 1895 as against 25 in 1892 and 1893. The special feature of the cycle of wet years was that damage was done to the best lands, while the poorer cultivators did not suffer so much. In 1895-96 the autumn rains were very short, being only 4½ inches as against an average of 11. The monsoon however had been satisfactory up to the end of August and the autumn crops yielded excellently; the sowings of spring crops however were short and their yield deficient, wheat and gram each giving only half the normal harvest.

The scarcity of 1897.

206. In 1896-97, the famine year, the monsoon rains had been abundant and up to August prospects looked brilliant; but in the critical months of September and October, which determine to a great extent the nature of both the harvests, less than 2½ inches were received, the result being the partial failure of the autumn harvest and a further shrinkage in the area sown with the cold-weather crops. This amounted to 514,000 acres in 1896-97 against 615,000 in 1894-95. Juār and wheat, however, yielded fairly, and the all round outturn was 67 per cent. of normal. The District thus escaped fairly easily as compared with most others and such distress as existed was due to the cumulative effect

of a succession of bad years and was accentuated by the high prices resulting from the famine condition prevailing over a large part of India. In September 1896, the price of juār rose from 18 to 14 seers, that of rice from 12 to 9 seers, and that of wheat from 14 to 10 seers to the rupee. It is interesting to note in passing that what were then famine rates are now, ten years later, little more than the standard prices. In addition a number of weavers had been thrown out of employment, owing to the year being Singhasta or one in which Hindu marriages were forbidden. The people became alarmed and accused the dealers of having combined to raise prices. The Koshtīs, always inclined to be turbulent, were joined by the lawless classes of the town and began looting the markets and grain shops. A riot developed, but was promptly suppressed by the aid of the military and the volunteers, and the ringleaders were severely punished. Slight disturbances broke out in other towns, following the example of Nāgpur, but were soon put down. Towards the end of 1896 the usual migration of labourers occurred from Bālāghāt and Bhandāra into Berār; but finding no work there, many of these wandered back into Nāgpur, while other refugees came down from the north, where matters were much worse than in Nāgpur. It was estimated that about 16,000 persons entered the District, of whom 4000 settled here.

Statistics of relief and mortality.

207. Relief works were opened in November, but the distress was never very serious. Up till January the numbers on works were quite insignificant and the maximum on all forms of relief was reached in May with 18,000 persons or 2½ per cent. of the population. The circular road round Ambājheri was constructed and the Nāgpur-Umrer, Umrer-Bhiwāpur and Kalmeshwar-Kātol roads were improved. Poor-houses at Nāgpur and Kamptee were opened by private subscription in the autumn of 1896, and were afterwards taken over by Government, and poor-houses

and kitchens were supported by private subscriptions at various other centres. Special relief was given to the weavers of Nāgpur, Kamptee and Umrer, advances being made to middlemen who supplied thread to the workmen, while the cloth produced was purchased by Government. The net expenditure amounted to Rs. 80,000. The total expenditure on famine relief was Rs. 5 lakhs, and about a lakh was distributed from the Indian Charitable Fund. No revenue was suspended. The birth-rate for 1897 showed no substantial decline, while the death-rate was 50 per mille or not exceptionally high. Prices reached their maximum in July and August 1897, when wheat was 8 seers and juār 8½ seers. There was a marked increase in both serious and petty offences against property, the number of cases of this category reaching 3300 in 1897, as against about 1500 in the two preceding years. The famine was accompanied by a scarcity of fodder and water, which caused serious losses of cattle. The bulk of the mortality of stock occurred after the rains had set in, and was no doubt due to the famished and weakened animals surfeiting themselves on the new and damp grass which was unfit for consumption.

The famine of 1900.

208. In the following year 1897-98, a bumper harvest was reaped, but in 1898-99 there was no rain between the end of September and the hot weather, and though the autumn harvest was a good one the spring crops were short. On the whole however the harvest was 92 per cent. of normal. In 1899 April and May were cloudy and rainy and this was regarded as an ominous sign. The monsoon failed completely, the rainfall of the period June-August being only 11 as against an average of 32 inches while from October to January none was received. The annual fall was less than a third of the average in each tahsil except Rāmtek, where it was about a half. In spite of the scanty rainfall cotton and juār gave 45 per cent. of an average outturn and the

Kātol tahsīl was not severely distressed. The other crops naturally failed completely. The Dongartāl tract in the north was most affected, the people here being poor and without resources, and next to this came the greater part of Umrer. Relief operations commenced from September and were developed in extent as the distress increased. Road-works, kitchens and village relief were the three principal methods employed for supporting the destitute classes. Under the Public Works Department 11 camps in all were opened, and the highest number of workers was 39,000, the average being about 15,000. The Ambājheri, Telinkheri and Jumā Talao tanks were deepened, and new roads were made from Nāgpur to Bishnūr, Pātansaongī to Khāpa and Bhiwāpur to Paunī. Other roads were improved. The distribution of cooked food in kitchens commenced on a small scale and was gradually extended, till in the rains 213 kitchens were open and 67,000 persons were being given food. Village relief was also begun on a small scale in the Deolāpār tract and the Umrer tahsīl, and was gradually extended over the whole District during the hot weather and rains. The maximum number in receipt of cash doles was 12,000 in September. Help was given to weavers in the town on the same system as in 1897 but on a much more lavish scale, the total expenditure being 6½ lakhs, but in return for this cloth of the nominal value of nearly the same amount was obtained. The total number of persons relieved increased gradually to 66,000 in the beginning of July, when it rose sharply to 90,000 at the end of July and 108,000 in August, this last figure being equivalent to 14 per cent. of the population. The total famine expenditure was Rs. 19½ lakhs and the loss to Government on account of suspensions of revenue and forest and other concessions was about 7½ lakhs more. About 2 lakhs were distributed from the Indian Charitable Fund for the purchase of seed-grain, blankets and clothing.

209. The mortality of 1900 was the highest on record for the District, being nearly 58 per mille, but there is no reason to suppose that any part of it was due to direct privation. But the inevitable results of exposure and unsuitable food especially in the case of children, which no efforts of Government can avert, lowered the physical condition of the people and made them an easy prey to the attacks of disease. The water-supply was insufficient and therefore necessarily polluted, and a fertile source of disease. The year was exceptionally unhealthy and the famine was accompanied by epidemics of plague, cholera, small-pox and malarial fever. The birth-rate was normal, indicating the absence of any marked physical deterioration. Although the supply of juār fodder was fairly adequate, a quantity of this was exported, and the grass withered. Cattle suffered heavily from want of food and water and the mortality amounted to about 36,000 head, being considerably higher than the average. Wheat averaged about 9 seers a rupee and juār a little over 10 seers from September 1899 to October 1900. At the commencement of the famine an outbreak of petty offences against property occurred, but proved to be only temporary, and the number of cases of this class was less than 2000 as against 3000 in 1897.

Mortality and prices.

210. From 1900 the District has enjoyed a succession of fairly prosperous seasons, and the large profits reaped from the cotton crop, together with the demand for labour caused by the development of mining and factory industries and the extension of communications has raised wages to a level never before dreamt of and enabled the poorer classes to enjoy an unprecedented degree of comfort. At the time of writing another failure of crops is being experienced owing to the short monsoon of 1907, but it seems unlikely that a single bad year can now produce serious distress over the District as a whole, or, unless it should be followed by others, seriously retard its development.

Concluding remarks.

CHAPTER VIII.

LAND REVENUE ADMINISTRATION.[1]

Revenue system of the Marāthās.

211. The sovereignty of the Districts of the Nāgpur Division was not acquired by the British Government until 1854, but owing to the minority of the Bhonsla Rājā they came under our management in 1818 and continued to be administered by European officers until 1830, when they were restored to native rule. We have fortunately from the pen of Sir R. Jenkins, Resident at Nāgpur in 1822, a complete and interesting account of the condition of these Districts when their management was assumed. The assessment of revenue was made annually and the amount was fixed in the first place in the aggregate for the pargana and then distributed among the villages by the pargana officer or *kamaishdār* in consultation with the patels. It is a curious fact to modern notions that though engagements were taken from the patels at the commencement of the agricultural year, the amount for which they were to be responsible was not fixed and communicated to them until some months later, when the character of the season became pretty well known. This practice undoubtedly enabled Government to extract a great deal of revenue from the people, as each person was fully rated according to his ability to pay in each year. At the time when the patels concluded formal engagements for the revenue of the year, they were actually in ignorance of the amount for which they engaged. This led to a curious device for apportioning the responsibility for the revenue among the ryots. For the main portion of the village lands, technically called the *chāl* lands, no rental was fixed, but each field was given a value to express its revenue-paying capacity in relation to the other *chāl* fields of the

[1] This chapter is abridged from Mr. Craddock's Report.

village. This value was termed the *ain* of a field and was ordinarily expressed in annas or in cowries per rupee. The revenue was apportioned among the ryots according to the *ains* of the fields held by them. Thus the ryot who held a field, the *ain* of which was 6 pies, would pay half the revenue which was payable by a ryot holding a field the *ain* of which was 12 pies, and in this way it was possible to settle at the commencement of each year the proportion of revenue payable by each man, although the amount of the revenue was unknown. The *ain* of a field was also not necessarily permanent, but might vary from year to year. A further complication was introduced by the fact that this system did not apply to all the village lands, but that a certain area was commonly let each year on fixed money rents. Such fields were called *thok* and they usually comprised the poorer land for which the patel was unable to conclude engagements on the *ain* system, the ryots being unwilling to cultivate them except on limited responsibility. When the revenue of the year was given out, the rent of the *thok* fields was first deducted from it and the balance distributed over the *chāl* fields in proportion to their *ains*. The difference between *chāl* and *thok* fields was not permanent, and some might change annually from one denomination to the other, land when in process of deterioration passing from *chāl* to *thok*, and when advancing in improvement from *thok* to *chāl*. The *thok* fields were usually a small minority. Each year a record was prepared called the *lāgwan*. It answered to the *jamābandī* of Upper India and gave details of the engagements concluded at the commencement of each year between the patel and the ryots. It showed the name of each ryot, the name of each *chāl* field held by him, and the *ain* of that field as settled in the preceding year; also the same particulars for the current year, noting all changes whether arising from the transfer of fields from one ryot to another, or from the transfer of a *chāl* field to the *thok* class or *vice versâ*, or from variation in the *ains* of any of the *chāl*

fields. As soon as the amount of the revenue was known, the rate of assessment on each unit of the *ain*, called the *dhāra*, was also inserted.

Absence of security of tenure.

212. Neither patel nor ryots were allowed any hereditary rights which might clash with the efficiency of this system. 'The patel' wrote Sir R. Jenkins, 'is the agent 'of Government for apportioning and collecting the rent of 'his villages, for which his responsibility is absolute, and he 'possesses a subordinate and rather undefined magisterial 'and judicial authority. The remuneration for agency or 'responsibility, which is paid either in money or rent-free land 'besides certain trifling dues and privileges is commonly 'one-fourth of the Government share, subject to various 'deductions which reduce it to about one-sixth. The office 'is held at the pleasure of Government, being neither here-'ditary nor saleable, and on the ejection or resignation of 'the incumbent no *mālikāna* is allowed. It is true that patels 'are frequently succeeded by their sons or other members 'of their family, not however by virtue of any hereditary 'right, but by sufferance or a new appointment by Govern-'ment, and whoever the incumbent may be, he is charged 'with the full exercise of all the duties and entitled to all the 'privileges of the office unencumbered with any interference 'or claims on the part of his predecessor or family.' The ryots held their lands on yearly leases granted to them by the patel. None of them were entitled to cultivate the same fields in perpetuity, nor was it the practice to grant leases to them for more than one year.

Enhancements made by the Marāthās.

213. The actual principle on which the revenue was raised or lowered appears to have resulted from a sort of compromise between the character of the season and the necessities of the central Government. Curiously enough a sort of permanent revenue demand seems to have been recognised called the *ain jamābandī*. What this was cannot

now be stated with any certainty, but it appears to have been the demand which the Marāthās found existing at the time that they took over the country from the Gonds. Similarly in Nimār the Mughal revenue, known as the *ain Māl Kāli*, remained the basis of the Marāthā demand. It could, however, be modified at the annual settlements with the patels according to the increase or decrease of cultivation. Their method of raising the assessment was to superimpose cesses known as *pattīs* or *bargans* which were percentages calculated on the *ain jamābandī*. The amounts of the *pattīs* imposed by the different Bhonsla Rājās were as follows expressed as percentages on the *ain jamābandī* :—

Raghujī I	(1743-1755)	80
Jānojī	(1755-1772)	96
Sivajī	(1772-1775)	32
Mudhojī	(1775-1788)	35
Raghujī II	(1792-1816)	130

Thus Raghuji II in his career of exaction after the peace of Deogaon more than doubled the proper revenue. At this time much land went out of cultivation. Besides the land revenue, the Marāthās realised a large number of imports and dues on all branches of trade and industry.

Period of British management.

214. During the period of British management triennial were substituted for annual settlements, and the administration was very energetic. The yearly papers were tabulated, names were given to each field and each field was assessed with a separate sum. The *kānungo* made a tour during the rains, checked the *lāgwans* and collected information which was laid before the Superintendent or District Officer as the time for re-assessment came round. The basis of the assessment was the *lāgwan*, the position of which came therefore to be entirely changed. Instead of being a record of the distribution of the aggregate village assessment, it became a record of the details on which the aggregate village assessment was to be framed. In con-

sequence the patel had an object in understating the rents and the *lāgwans* became an untrustworthy guide to the village assets. It was in consequence of the unreliable nature of the village papers that no regular determination of the assets seems to have been subsequently attempted at the 30 years' settlement. The District containing the present area of Wardhā and Nāgpur was then called Deogarh below the Ghāts. It was divided into 130 parganas in charge of 60 *Kamaishdārs*, whose pay only averaged Rs. 25 a month. When he took over the management in 1818, Sir R. Jenkins reduced the number of parganas to 23 with as many *Kamaishdārs* and raised their pay to Rs. 90 a month. At the same time steps were taken to reform the administration of the land revenue which had become utterly corrupt, while adhering to the methods of the Marāthās. After the exactions of the last two reigns, with the abuses, which crept in under an underpaid staff, the accounts were in a state of veritable chaos. The papers of every village had to be examined and large balances remitted. These measures, which were carried out in 1818 and 1819, resulted in the nominal demand of Deogarh below the Ghāts being at once reduced from Rs. 16·32 to Rs. 14·19 lakhs. In 1819 the demand was fixed at Rs. 12·63 lakhs. Many villages had been deserted and the termination of the war and pacification of the country was followed by a heavy fall in prices. In the following years, however, the management of British officers inspired the people with confidence. Villages were taken up again and land was brought under cultivation. During the first seven years of our management the number of inhabited towns and villages rose from 1890 to 2075 and the revenue increased from Rs. 12·47 to Rs. 13·72 lakhs.

Protection of the ryots.

215. Mr. Fuller[1] states that our policy during the period of management was to limit the authority of the patel over the ryot, following the system adopted in the northern Districts. But

[1] Note on Revenue Settlements, page 11.

this policy, though it eventually prevailed, was not the one enunciated by Sir R. Jenkins, who, as remarked by Mr. Craddock, appeared to have leanings in favour of the patels. He wrote as follows[1] :—'It was requisite to touch with a 'tender hand the relation between the patels and ryots ; to 'avoid unnecessary interference, and discourage litigation ; 'to redress well-founded complaints but mainly to rely on the 'effect of moderate demands on the part of Government, and 'equitable conduct in its operations for realising them, as 'well as on the consequent excitement of competition among 'the patels for agricultural labour, to produce a gradual 'amelioration in the condition of the ryots.' But while the extra cesses and *bargans* were to be abolished or amalgamated with the rents and the levy of new ones was strictly prohibited, no attempt was to be made to give any right of occupancy to the ryot. 'There are frequent complaints from 'ryots against patels for depriving them of fields they have 'cultivated for many years, the patel either wishing to cultivate the land himself or to raise the rent. No interference 'is exercised on the part of the Superintendents unless any 'violation of positive agreement can be made out by the 'complainant'. Government recognised no continuity of tenure on the part of the ryots and at the commencement of each new year the patel and ryots assembled and a distribution of *pān* took place, the offer of the *pān* by the patel to the ryot signifying his acceptance of him as a tenant for the coming year. Mr. Craddock remarks 'In the Resident's 'account of the relations of the patel and ryots with the 'Government, we may first discern that leaning in favour of 'the patel as against the ryot which in after years developed 'into the award by Sir R. Temple of proprietary rights.' There can be little doubt also that the well-meant but misguided interference of the District Officers between the headmen and tenants in the northern Districts furnished a strong argument in favour of this measure. Nevertheless

[1] Report on the Nāgpur Territories, page 81.

many considerations operated in favour of the tenants, whose part was taken by some of the Superintendents. In the Waingangā and Chānda Districts the Resident was induced to give an order that the patels should not raise the rent of a ryot without the sanction of the pargana officer. This measure did not extend to Deogarh below the Ghāts, but the patels here were debarred from selling the cattle and implements of tenants for arrears of rent, which they had formerly been in the habit of doing. It was ordered, on the other hand, that when a ryot left the village in debt to his patel he was not to be allowed to settle elsewhere until he had paid up his arrears. And this order shows, as remarked by Mr. Craddock, that the demand for cultivators to till the land operated in a large measure to protect the ryots. The trend of our policy is, however, shown by the order issued by Colonel Elliot, Commissioner of Nāgpur in 1855, which prohibited the patels from enhancing the rent of ryots on account of improvements which they had themselves effected in their holdings. And further that disputes between the mālguzārs and the tenants in the determination of rent even on newly-broken up holdings must be referred to the village *panchāyat*. And in a treatise on summary suits by Messrs. Manderson and Carnegie, which was a text-book in Nāgpur until 1864, it is stated 'In 'short a landlord without instituting a regular suit in the 'civil court cannot oust any tenant whatever, with the one 'exception of his holding a summary decree against him.' The result of our policy was that from the period of assumption of management in 1818 up to the 30 years' settlement, there was no general increase in rents or revenue and both tended to assume a customary character. The patels were not tempted to raise the rents of their tenants because, if they did so, the results would appear in the rent-roll and their own revenue would be raised. The absence of any general revision for so long a period naturally produced glaring inequalities in the rent-rate.

Native Rule from 1830 to 1854.

216. In 1830 the Districts were handed back to the Rājā in a satisfactory condition with an increased revenue. Native rule continued from 1830 to 1854 and this period was characterised by great laxity of administration. The policy inaugurated under British management was adhered to, but without the watchfulness which made it work satisfactorily, and the result was a considerable decrease of revenue. The Settlement Officer of Bhandāra (Mr. A. J. Lawrence) wrote 'During the time of the Sūbahs 'which followed the British Protectorate the same means 'of discovering the resources of the villages were resorted 'to, but as the eye of the master became less searching, so 'did the labours of the subordinate decrease. In the course 'of time, each succeeding assessment was made on the 'rent-roll, the size of the home farm was also attended to 'and a greater or less percentage on the gross assets 'allowed according to the reputed value of the home lands. 'When the patels and cultivators came to understand that 'so much depended on the accounts they themselves showed, 'the amounts so exhibited had a tendency to decrease. 'Sudden diminutions were naturally suspected and were 'looked into, but a patel who managed skilfully had little 'difficulty in lightening his burdens.' The result was that when the investigations for the 30 years' settlement were made, the rents entered in the village papers were found to be utterly unreliable. In Chānda the last period of Bhonsla rule was characterised by gross oppression of the hereditary patels, many of whom were ejected and their villages made over to court favourites. But in Nāgpur and Wardhā, which were under the closer supervision of the Rājā Raghujī III, apparently a well-meaning but somewhat weak man, there was less opportunity for these abuses. The revenue of the two Districts fell from Rs. 13·87 lakhs in 1830 to Rs. 13·08 lakhs in 1854. The following statement given in paragraph 333 of Mr. Craddock's Report shows the revenue demand

of the Nāgpur District as now constituted at different periods in Government rupees :—

Date of Assessment.	Revenue demand of the District (as now constituted.)
	Rs.
Last settlement during the minority of the Rājā, 1824-1826.	8,99,897
British settlement having effect during the first years of the Rājā's management, 1827-1829.	9,10,533
Intermediate settlement during the Rājā's rule, 1839-1841.	8,21,592
Last settlement during the Rājā's rule, 1851-1853.	8,45,235
British settlement, 1856 and 1857	8,69,800
Prior to Mr. Ross' revision	8,76,896

The 30 years' settlement.

217. On the escheat of the tract in 1853 summary settlements were concluded, as shown in the above statement. Orders for the 30 years' settlement were issued in 1860, the survey having been begun in 1858. The settlement was conducted by Mr. A. B. Ross of the Civil Service. He was at first responsible for the survey and settlement of both Nāgpur and Wardhā and for nearly a year of that of the Bhandāra District also. Wardhā was constituted a separate District in 1862, and in 1863 a revision of boundaries took place, by which the old Ashtī pargana, parts of those of Kondhāli and Keljhar and the bulk of the old Girar pargana were transferred from Nāgpur to Wardhā, and 122 villages of the Belā pargana from Wardhā to Nāgpur. The settlement of the tracts transferred to Wardhā in 1863 was effected by Mr. Ross. The settlement was introduced in Nāgpur between the years 1863 and 1866, but the operations were not concluded until 1867. The basis of the settlement was nominally to fix the revenue at half the assets, but the assets were simply estimated by the Settlement Officer at some prospective sum to be realised from the increase of trade and advantages of fixity of tenure and the enhancement of rents by the proprietors. But it was probably assumed that

the work of assessment was undertaken more with the object of rectifying irregularities and of giving reduction where circumstances seemed to call loudly for it, than with the purpose of effecting an enhancement. The existing assessment was considered a high one and in 1857 it had been reported that the cultivators had been emigrating in numbers from the District to the Berārs. The general incidence of the revenue was not oppressive, but in many villages it was collected with difficulty and the instalments from some villages were habitually in arrears. Indeed, it would almost seem likely that the Settlement Officer having determined practically by observation and such information as he had at his disposal, what revenue the village could pay, subsequently estimated the assets to fit in with this. The assets were at any rate based on the vaguest suppositions, allowance being made for the mālguzār's profits from lending grain, the capacity of land for future irrigation and the increased value of landed property due to the opening out of new roads. On this basis the Settlement Officer fixed the prospective assets at Rs. 16·30 lakhs, a figure which they had not reached at Mr. Craddock's Settlement. The actual assets at the time of assessment were Rs. 11·53 lakhs.

Results of the settlement.

218. The revenue fixed was Rs. 8·78 lakhs, being a small net increase of about Rs. 1000 on that existing before revision. This was the outcome of the maintenance of the existing revenue in the majority of cases and trifling enhancements and reductions in the remainder, and it was justified by raising and lowering the assumed rental values of the villages. On the actual assets as then existing the revenue fell at no less than 76 per cent. Yet the settlement was very far from being severe and it merely maintained the assessment which had been paid for the previous forty years. The patels had as has been seen to content themselves with a share of 16 per cent. of the assets under

Marāthā administration, and they had not yet learnt to expect more. They now received the gift of proprietary right, the term of the settlement was for thirty years instead of three and their revenue was not enhanced. They were delighted to be left in the enjoyment of the profits they then had, with the prospect of taking any additional profit that the next thirty years might bring. And the settlement was contemporaneous with the opening up of the District by a railway and a sudden rise in the agricultural produce. But the idea, subsequently put forward by some mālguzārs that the assessment was made at half the assets was an absurd delusion. The incidence of the revenue per acre in cultivation was R. 0-11-11. No rental enhancement was made by the Settlement Officer, and the rents remained for years after the settlement practically what they were before it. As has already been seen, the policy under Sir R. Jenkins had tended to prevent the patels from raising rents on their own authority and they had come to consider that they had not the power to do so or that if they did their own payments would be at once again enhanced. It was not considered part of the Settlement Officer's duties to undertake a general revision of the rental. About half the tenants obtained rights which protected them from enhancement, and the consequence was that at Mr. Craddock's settlement, a considerable proportion of the rents had remained practically unaltered for seventy-five years.

Currency of the 30 years' settlement.

219. During the currency of the 30 years' settlement the District prospered. The occupied area increased from 14 lakhs to 15·70 lakhs of acres or by 12 per cent. At revision of settlement 80 per cent. of the occupied area was under crop. The prices of the chief staples increased during the period of settlement by 140 per cent. and rents, including the revenue payments of plot-proprietors, rose from Rs. 9·77 to Rs. 11·74 lakhs or by 20 per cent. The area

cultivated by the proprietors expanded from 173,000 to 228,000 acres.

The settlement of 1891-95.

220. On the expiry of the thirty years' settlement the District was re-assessed during the years 1891 to 1895 by Mr. R. H. Craddock, subsequently Chief Commissioner of the Central Provinces. The Settlement Report contains a very full and complete account of the District and its population and a large part of the Gazetteer has simply been reproduced from it. The procedure and basis of the settlement are also discussed at length, and the reader may be referred to the Report for the detailed narrative, of which only the barest outline is here reproduced.

The cadastral survey.

221. The settlement was preceded by a cadastral survey, based on a traverse or peripheral survey of each village by the Survey Department, and carried out by the local patwāris with the chain and plane-table under the supervision of a Surveyor of the Department. Each patwāri was required to survey his own circle of villages. The survey was completed between the years 1888 and 1892, and the bulk of it was conducted by Mr. J. R. Scott. The cost of the cadastral survey was Rs. 1·19 lakhs or Rs. 36 per square mile and of the traverse Rs. 25 per square mile. The survey extended to the whole District except 517 square miles of Government forest and six square miles of Cantonments. The total number of fields in the District was 442,000, giving an average of about three acres of occupied area to a field.

Method of assessment.

222. The attestation and inspection of villages was carried out between the years 1891 and 1894. Out of 2205 villages in the District, more than 2000 were inspected by Mr. Craddock himself. The settlement was made according to the soil-unit system, by which a relative factor of value is assigned

to every kind of soil and raised or lowered for various advantages and disadvantages in the position of the field. The different soils and positions distinguished are stated in the chapter on Agriculture. This numerical factor was considered to be equivalent to the same number of soil-units, and by this means every field has a proportionate number showing its relative productive capacity in reference to all other fields. By adding the numbers representing all the fields in a village together and dividing them into the rental, the average rent paid by one soil-unit is obtained. The proportion by which the rental generally can be enhanced on the score of rise in prices and increased cultivation is determined ; the rent which one soil-rent would pay according to the percentage of enhancement is then calculated and the result is known as the unit-rate ; and the revised rent for each field or holding is then deduced by multiplying this figure by the number of soil-units contained in the factor representing the field. By this means a correct valuation of the land is arrived at, which the existing rental being affected by numerous extraneous circumstances, such as the status of the tenant, the character of the mālguzār, and their relations to each other is very far from affording. Most holdings are also composite or containing land of different qualities, and except by the soil-unit system there would be no means of distributing the rental over it. The process is of course not merely mechanical, nearly every village being inspected by the Settlement Officer, while different rates of enhancement are taken for different groups of villages and then again varied for individual villages. When the deduced rent or that which each holding should be called upon to pay according to its capacity, has been calculated, the existing rent is compared with it, and if the enhancement would be too large, a lower one is fixed. For the numerous considerations which governed the fixing of rents Mr. Craddock's report may be referred to.

Valuation of soils.

223. The following statement shows roughly the rental assessed in each tahsīl on the different classes of soil in the ordinary position :—

Class of soil.	Soil factors.	Nāgpur Tahsīl.		Rāmtek Tahsīl.		Umrer Tahsīl.		Kātol Tahsīl.	
		Incidence at settlement.	Deduced rental.	Incidence at settlement.	Deduced rental.	Incidence at settlement.	Deduced rental.	Incidence at settlement.	Deduced rental.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Kāli I	40	..	..	..	..	..	..	2 6 0	3 1 7
Kāli II	36*	2 5 7	3 1 7	2 3 8	2 7 3	1 10 8	2 0 5	2 2 2	2 12 8
Morand I	32	1 14 1	2 3 6	1 15 8	2 2 11	1 7 8	1 12 10	1 14 5	2 7 8
Morand II	24	1 6 7	1 10 8	1 7 9	1 10 2	1 1 9	1 5 7	1 6 10	1 13 9
KhardīGohāri	16	0 15 0	1 1 9	0 15 10	1 1 5	0 11 10	0 14 5	0 15 2	1 3 10
Kachhār	36*	2 5 7	3 1 7	2 3 8	2 7 3	1 10 8	2 0 5	2 2 2	2 12 8

* In Nāgpur tahsīl soil factor of *Kāli* II and *Kachhār* was 40.

The highest rental imposed was thus Rs. 3-1-7 an acre on the best black soil of the Kātol tahsīl. While for the commonest soil of the District, *morand* II, the rental varied from R. 1-5-7 to R. 1-13-9. The land of Kātol tahsīl was the most highly assessed, not because it is on the average the most fertile, but because the cotton and juār crops here are more valuable, and the cultivators more efficient than elsewhere. The statement on the next page shows the differences in the average rental assessed on wheat, rice and minor crop land and on wheat land in different positions.

Considerations affecting the rent-rate.

224. The general considerations affecting the pressure of the rental and the extent of its enhancement are thus stated by Mr. Craddock[1] :—

[1] Letter No. $\frac{4726}{74}$, dated 7th December 1899, as Commissioner of Settlements, to the Secretary.

Class of Soil.	Wheat Land.											Garden Land.		Rice Land.				Minor Crop Land.	
	Ordinary and Bandhia.		Sawān and Bandhān.		Pathār.		Wāhuri.		Khāri.		Rān.	Irrigable. Ordinary.		Irrigated		Unirrigated.		In Wheat tracts.	
																Sawān.		Ordinary.	
	Soil factors.	Deduced rental.	Soil factors.	Deduced rental.	Soil factors.	Deduced rental.	Soil factors.	Deduced rental.	Soil factors.	Deduced rental.		Soil factors.	Deduced rental.	Soil factors.	Deduced rental.	Soil factors.	Deduced rental.	Soil factors.	Deduced rental.
		Rs. a. p.		Rs. a. p.		Rs. a. p.		Rs. a. p.		Rs. a. p.			Rs. a. p.		Rs. a. p.		Rs. a. p.		Rs. a. p.
Kāli I ...	40	2 11 5	44	2 15 9	32	2 2 9	20	1 5 8	70	4 11 11	Factors reduced by 20 to 40 per cent.	80	5 6 10	...	.....	..	....	...	....
Kāli II ..	36	2 7 1	40	2 11 5	29	1 15 6	18	1 3 6	64	4 5 6		72	4 14 2	..	......	..	.....	..	....
Morand I ...	32	2 2 9	38	2 9 3	26	1 12 3	16	1 1 4	56	3 12 10		64	4 5 6	50	3 6 3	34	2 4 11	20	1 5 8
Morand II ...	24	1 10 0	28	1 14 5	19	1 4 7	16	1 1 4	42	2 13 7		48	3 4 0	45	3 0 10	30	2 0 6	14	0 15 2
Khardī ..	16	1 1 4	19	1 4 7	14	0 15 2	14	0 15 2	28	1 14 5		32	2 2 9	29	1 15 6	12	0 13 0	8	0 8 8
Retāri ..	..	......	...	....	...	....	...	....	...	....		24	1 10 0	Valued as Khardī or Bardī, according to circumstances.				5	0 5 5
Bardī ..	..	....	...	....	..	....	...	......	..	......		24	1 10 0	20	1 5 8	8	0 8 8	5	0 5 5
Kachhār ..	36	2 7 1	40	2 11 5	29	1 15 6	18	1 3 6	64	4 5 6		72	4 14 2	...	....	..	....	..	...

'The agricultural tracts of the District as distinguished 'by their character and cropping fall under three main 'heads—the western and north-western, the juār and cotton 'country; the central and southern, wheat; and the eastern 'and north-eastern, rice, wheat, and miscellaneous crops. 'The most prominent feature is the high standard of *kharīf* 'cultivation, which is carried on under the system followed 'in Berār and the Deccan and seems to bring with it a higher 'standard of industry than is found in either the wheat-'growing tracts of the District or in other Districts in which 'wheat is the principal crop. It is, I think, certain that 'where the climate is best suited to a crop of which the 'cultivation requires industry, the industry will follow, 'and this doubly so if the crop gives a better return to 'industry. This has been the case in Nāgpur; the outturns 'of juār and cotton may easily be doubled by the application 'of manure, and careful weeding and cultivation. But wheat 'and other *rabi* crops produced in the cold weather lack the 'moisture so necessary for the assimilation of manure and 'the same amount of manure will add only about 25 per 'cent. or at the utmost 33 per cent. to the outturn, and in 'dry seasons little or nothing.

'Similarly, in the rice-growing areas of the District we 'find that a cultivator with wheat and rice fields will 'lavish all his manure and labour on the latter, and 'allow the former to shift for itself. The normal price of 'wheat is now higher than the normal price of juār, but 'such was not the case fifty or sixty years ago, and, as 'a consequence, land which could produce wheat but 'not juār, cotton or rice, was very lightly prized. The 'crop areas of the District at the first regular settlement 'were totally unreliable, and no statistics can be quoted 'as proving indisputably the changes in cropping which 'have occurred, but the evidence of the people proves 'beyond a doubt that a great deal of land which formerly 'produced very poor juār has now been put under wheat.

'Fifty years ago the rental and revenue of the District, 'then almost synonymous terms, were distributed and 'apportioned to the condition of agriculture at the time; 'the Marāthā revenue officers were not slow to avail them-'selves of the industry of the cultivator whenever they could 'do so, and took all they could out of the best *kharīf* 'villages, while the wheat tracts, then considered inferior, 'were let off lightly. There was competition for the former 'and none for the latter, and wherever this was keenest the 'assessment was very high. The economic changes which 'the opening of the railway and the rise in the price of wheat 'brought about have been subsequent to the introduction 'of the 30 years' settlement, and were necessarily accom-'panied by no corresponding redistribution of rents. Where 'habits of industry had been ingrained into the cultivator's 'character, he found that the rise in prices increased the 'balances available to him for comforts. Where, as in the 'wheat tracts, he had always been lazy, the effect of the rise 'in prices was to make him lazier still. Thus it is that 'the greatest prosperity is to be found in the tracts which 'produce good *kharīf* or good crops of both seasons, and 'the highest rents accompany the highest standard of comfort 'and the highest prosperity. Here and there individual 'landlords breaking through tradition have raised the low 'wheat rents to a pitch equal to that paid on the best *kharīf* 'lands; but, as a general rule, while the rents paid in the 'wheat tracts appear to be quite insignificant besides those 'paid in similar lands in Hoshangābād or Jubbulpore, the 'cultivators of those Districts would be completely staggered 'were they called upon to pay on their *kharīf* cultivation 'which is subsidiary and therefore careless, the rental which 'in the Nāgpur country is compatible with the greatest 'prosperity.'

225. The following statement shows briefly the results of the settlement on the position of plot-proprietors and tenants :—

Rental enhancement.

Class of Tenant.	Rate per acre.			Increase per cent		
	At the former settlement.	Before revision.	After revision.	Of column 3 over column 2.	Of column 4 over column 3.	Of column 4 over column 2.
1	2	3	4	5	6	7
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Mālik-makbūza ...	1 4 6	1 2 6	1 5 10	—10	+19	+ 7
Absolute-occupancy.	1 0 5	1 0 11	1 4 1	+ 3	+19	+22
Occupancy	0 12 11	0 13 6	1 0 3	+ 4	+20	+26
Ordinary	0 10 7	0 12 9	0 13 8	+20	+ 7	+29
All-round	0 12 10	0 14 1	1 0 3	+10	+15	+26

226. The area held by *mālik-makbūzas* or plot-proprietors had increased from 80,000 to 100,000 acres during the 30 years' settlement by the resumption of revenue-free grants. These were rented at a lower rate than the average, and the real rate of increase on the *mālik-makbūza* area of the previous settlement was 19 per cent. The plot-proprietors represented the oldest ryots and included a large proportion of garden cultivators, whose plots had always paid a high revenue and could not bear much enhancement. Absolute-occupancy tenants held 270,000 acres, the area under this tenure having decreased by 50,000 acres since the previous settlement. Their rental was increased by 20 per cent., having remained unchanged during the term of settlement. Occupancy tenants held 559,000 acres as against 249,000 at the previous settlement. Of the old occupancy area Mr. Craddock estimated that only 150,000 acres remained,

Analysis of rent-rates.

about 40 per cent. having lapsed from surrender, failure of heirs or merger; out of the present area therefore more than 400,000 acres had come under the occupancy tenure during the period of settlement, being mainly land held in ordinary right at the previous settlement, with a small proportion of proprietary land. The transfer of so large an area from ordinary to occupancy tenure took place under the operation of the 12 years' rule of possession; acquisition of occupancy right by purchase having occurred only in a few isolated cases. A large proportion of the land thus included was of inferior value, and Mr. Craddock estimated that the real rise in the occupancy rent-rate during the 30 years' settlement was 17 per cent., and the addition of a 20 per cent. increment brought the revised rental to a point 40 per cent. above that of the previous settlement. The total occupancy rental was however less than the deduced rental, the figures being Rs. 5·68 and Rs. 5·90 lakhs respectively. Ordinary tenants held 373,000 acres as against 521,000 acres at the previous settlement. Of the old area, about 400,000 acres had come under the occupancy tenure, while the ordinary land now included 170,000 acres broken up from waste. The remaining area must have been land previously held by proprietors and superior tenants. Mr. Craddock estimated that the real increase in the ordinary rental over that of the previous settlement was also 40 per cent., the true enhancement during the currency of the settlement having been 32 per cent. In some groups proprietors had largely enhanced the rents of ordinary tenants, as in Rāmtek and the groups near Nāgpur. On the other hand in Kātol where the proprietors were largely drawn from the cultivating castes, rents had simply risen spontaneously in the letting out of new land and not as the result of direct enhancement. The rack-renting of ordinary tenants which had been prevalent in some of the northern Districts was however practically unknown in Nāgpur. The revised District rent-rate was R. 1-0-3 an acre, showing an increase of 15 per cent. over the rate of R. 0-14-1

prior to revision and of 26 per cent. over the 30 years' settlement rate of R. 0-12-10. The moderation of the enhancement may be gauged from the fact that the percentage approved as justified by the increased value of produce was 50 per cent. The average rental was nearly equal, at a little over 17 annas, in the Nāgpur, Kātol and Rāmtek tahsīls, but in Umrer it was substantially lower, falling at R. 0-13-10.

Home farm of the proprietors.

227. The area held by proprietors was 228,000 acres or 14½ per cent. of the occupied area; of this 182,000 acres were recorded as *sīr* and 46,000 as *khudkāsht*. The *sīr* land had increased by only 5½ per cent. since the previous settlement, a certain amount of land having passed from this denomination through being let to tenants without special reservation of *sīr* right; a condition of law which obtained from 1884 to 1889. The home farm is largest in the Kātol tahsīl, where it amounts to 18 per cent. of the occupied area, and smallest in Nāgpur. The *sīr* land is always some of the best in the village and the average rental valuation adopted was R. 1-4-9 as against the all-round ryoti rate of R. 1-0-3. The *pān*-gardens of the Rāmtek tahsīl were taken as separate mahāls and recorded as held in *sīr* right. They had been grossly over-assessed in former days and after a very careful inquiry their rental valuation was reduced from Rs. 6300 to Rs. 5200.

Miscellaneous income.

228. The estimate of *siwai* or miscellaneous income was made with studied moderation, and in all but about six cases was agreed to by the proprietors themselves. It amounted to Rs. 41,000 as against the average ascertained receipts for some years of Rs. 57,000. The items composing it were fuel and timber Rs. 11,000, grass and grazing Rs. 15,000, fruit-trees nearly Rs. 7000, mahuā Rs. 4700 and tanks Rs. 2700. The total area of forest and grass land in private hands was 313,000 acres and the assessment fell at 2 annas per acre. The profits have no doubt largely increased since the settlement.

Comparison of assets.

229. The following statement compares the assets of the 30 years' settlement with those obtained after revision :—

		At 30 years' settlement.	At settlement of 1892-94
		Rs.	Rs.
Mālik makbūzas' payments and tenants' rental.		9,77,000	13,61,000
Rental value of home farm and land held on privileged and service tenure.		1,57,000	5,21,000
Siwai and miscellaneous income...		19,000	41,000
Total ...		11,53,000	17,23,000
Increase on assets at last settlement.	Actual ...		5,70,000
	Per cent. ...		49

Fraction of assets taken as revenue.

230. The increase of the assets over those of the 30 years' settlement was Rs. 5·70 lakhs or 49 per cent. As the revenue fell at 75 per cent. of the assets at the 30 years' settlement and at 56 per cent. on those existing before revision, it was clear that the adoption of a standard fraction below 60 per cent. would have secured to the State nothing of the unearned increment which had already accrued and very little of that added at revision. The fraction of the assets to be taken as revenue was therefore fixed at 60 per cent. and this fraction was not exceeded except where the revenue already existing fell at a higher proportion. A fraction of over 60 per cent. was taken under these circumstances in 187 villages, while in 1289 the standard of 60 per cent. was taken, and in 729 less than 60 per cent., the reason in these cases being either to avoid too large a direct enhancement or to show consideration to a deserving

proprietor. The largest proportion of villages assessed at 60 per cent. or more of the assets lay in the Nāgpur tahsīl, being justified by the existing heavy assessment of the tahsīl, which had continued from native times. Fractions lower than 60 per cent. were commonly taken in the Bhiugarh and Dongartāl groups of the Rāmtek tahsīl, where the villages are poor and small, and the assets unstable. In calculating the fraction of assets taken the payments of *mālik-makbūzas* are excluded, as on these the mālguzār is allowed only a drawback of from 10 to 20 per cent. of the revenue. The revised *mālik-makbūza* payments were Rs. 1·36 lakhs, of which the drawback allowed to the proprietors was Rs. 12,500.

Enhancement of the revenue.

231. The land-revenue demand imposed at the commencement of the 30 years' settlement was Rs. 8·78 lakhs; it rose during the currency of settlement by resumption of assignments to Rs. 8·98 lakhs and was enhanced by Mr. Craddock to Rs. 10·58 lakhs including assignments, or by 18 per cent. only. The net demand, excluding assignments, was raised from Rs. 8·45 to Rs. 9·82 lakhs or by Rs. 1,37,000. At the 30 years' settlement the revenue fell at R. 0-12-0 per acre in cultivation and the incidence was now raised to R. 0-12-8. The revised demand absorbed nearly 59 per cent. of the true mālguzāri assets and nearly 91 per cent. of the *mālik-makbūza* revenue or 60·4 per cent. of the two combined. It fell at about 5½ per cent. of the normal gross produce, cost of seed being deducted. The proprietary profits left to the mālguzārs were Rs. 6·65 lakhs, as against Rs. 2·75 lakhs at the 30 years' settlement. If the cultivating profits of the home farm be included their income had more than doubled. The rental had been raised by Rs. 1·87 lakhs and against this the revenue was increased by Rs. 1·60 lakhs including assignments, so that the cash income of the proprietors actually increased by Rs. 27,000. The increase in assets since the previous settlements was Rs. 5·70 lakhs and of this

Rs. 1·60 lakhs or 28 per cent. only was taken in the enhancement of revenue.

Cesses.

232. Besides the revenue the proprietors had to pay cesses. At the 30 years' settlement the road and school cesses were each levied at 2 per cent. and the postal cess at ½ per cent. on the revenue. The Additional Rate of 2 per cent. was imposed in 1878 as a contribution to famine expenditure, and the patwāri cess was subsequently added at 3¾ per cent. to pay for the cost of the Land Record Staff, the mālguzārs having previously been obliged to prepare annual records at their own expense. Prior to revision the cesses thus amounted to 10¼ per cent. on the revenue demand. At revision the road cess was raised to 3 per cent. and the patwāri cess lowered to 3½ per cent., so that the combined cesses came to 11 per cent. on the revenue. The road, school and postal cesses amounted to Rs. 60,000, the Additional Rate to Rs. 22,000, and the patwāri cess to Rs. 33,000. The Additional Rate was abolished in 1905 and the patwāri cess in 1906, so that the burden on the proprietors was substantially lightened. In 1906-07 the demand for land revenue was Rs. 9·92 lakhs and for cesses Rs. 55,000.

Period and cost of settlement.

233. The new settlement was introduced between the years 1893 and 1897; it was made for 20 years over the greater part of two tahsils, and in the remainder of the District for 17 to 19 years, so as to bring it to conclusion in rotation of tahsīls. It expires in 1912 in Umrer, 1913 in Nāgpur, 1914 in Rāmtek and 1915 in Kātol. The expenditure on the cadastral survey and the settlement was Rs. 2·70 lakhs or at the rate of Rs. 81-9 per square mile. With the exception of Wardhā, where a native Settlement Officer was employed, the expenditure on assessment will bear comparison with that of other Districts. The settlement was accepted by the people contentedly as an equitable and moderate revision of the Government's share of the

produce of the land. Though it was introduced under very unfavourable circumstances during a prolonged period of agricultural depression no abatement has been found necessary, and except in the famine year of 1900, the demand has been collected practically in full. The dates fixed for the payment of the two instalments of land revenue were February 10th and May 15th.

Special tenures.

234. The District has no zamīndāri estates. At settlement, eight ryotwāri villages* were in existence and their number has now increased to nine. Two of these were resumed villages, formerly let on clearance leases, and the remainder were founded on land excised from Government forest. Five are situated in the Rāmtek tahsīl. About 2000 acres are occupied for cultivation in these villages and pay a revenue of Rs. 1400. Four villages have been absorbed into civil stations and cantonments. Some gardens and fields situated within the municipal area of Nāgpur were withdrawn from municipal management and transferred to the revenue department, the holders being made Government ryots. Their area was 279 acres. The large Lendī tank on the outskirts of the city had been originally settled with the betel-vine growers of Hansāpuri; but for several years its management had been assumed by the municipal committee, who auctioned the fisheries. The Dhīmars allowed the tank to get very low and the *pān* cultivation suffered greatly. The management of the tank was now restored to the Baraīs on a revenue of Rs. 408. The betel-vine gardens in the Rāmtek tahsil were recorded as held by the Baraıs in co-partnership in *sir* right. These industrious communities had been much over-assessed in former days, and the assessments pressed more heavily now that the cost of the forest products necessary for the construction of their enclosures had so much increased. Their rental was reduced from Rs. 6300 to Rs. 5200. Nearly 37,000 acres have been sold under the Waste Land Rules, and now form 29 separate villages and

3 mahāls. These sales were discontinued in 1877 by an opportune order. The object in view in making them was the colonisation of waste land, but in several cases, as in that of some teak-covered hills in Umrer, no cultivation was attempted by the purchasers, who easily recouped themselves from the proceeds of the forests. Ten plots had been let out under the Clearance Lease Rules, and in nine of these, proprietary rights had been earned by the lessees or their representatives, so that they became mālgūzari villages. In the remaining case (Gārgoti), the lease was resumed and the village settled ryotwāri. Inferior[1] proprietary rights exist in a few villages of the Mohpā estate, formerly belonging to a Muhammadan family but now alienated, and in the Bhiwāpur estate, held free of revenue. Protected status was conferred at settlement on the *thekadārs* of eight villages in the Bhiwāpur estate and those of the Bhonsla and Gūjar families.

Revenue-free and quit-rent grants.

235. About 224,000 acres consisting of villages or shares of villages and 11,000 acres contained in holdings were held wholly or partially revenue-free in 1906-07, the amount of revenue so assigned being Rs. 79,000. This area consists principally of the old private estates of the Bhonsla family and their relatives, which they were allowed to retain. The Bhonsla estate, held by Rājā Raghujī Rao and Kunwar Lakshman Rao, consists of 35 villages in Nāgpur tahsīl, 9 in Rāmtek, 3 in Kātol and 20 in Umrer. The estate of Naolojī Rao Gūjar, the great-grandson by adoption of Tukā Bai, daughter of Rājā Mudhoji, consists of 18 villages in Rāmtek and 6 in Umrer. Another member of the family, Krishna Rao Abā Sāhib Gūjar, holds a grant of 11 villages in the Umrer tahsīl. The villages of Kodāmendhī and Khandāla in Rāmtek belong to Krishna Rao, the descendant by adoption of Bānu Bai, daughter of Raghujī II. The Sirke family hold five villages free of revenue and the Upādhe family four.

[1] See paras. 131 and 389 of Mr. Craddock's Report.

Statistics of holdings.

236. The total area included in holdings in 1905-06 was 1,600,000 acres and was distributed as follows:— An area of 180,000 acres or 11 per cent. of the total consisted of *sīr* land and 88,000 acres or 5½ per cent. of *khudkāsht* land; *mālik-makbūzas*[1] held 105,000 acres or 6½ per cent. of the total area, absolute occupancy tenants 258,000 acres or nearly 16 per cent., occupancy tenants 544,000 acres or 33 per cent., ordinary tenants 422,000 acres or 26 per cent., while 24,000 acres or 1½ per cent. of the total were held rent-free from the proprietors or in lieu of service. Since the settlement the holdings of occupancy tenants have decreased by 15,000 acres and those of absolute occupancy tenants by 11,000 acres, while ordinary tenants hold an increased area of 49,000 acres.

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[1] Plot-proprietors.

CHAPTER IX.

GENERAL ADMINISTRATION.

(F. DEWAR.)

Administrative Sub-visions and Staff.

237. The Deputy Commissioner, who is also District Magistrate and District Registrar, has a sanctioned staff of four Assistants, but the work of the headquarters District and of the city has in late years increased and at present the staff consists of three Assistant Comissioners of the Indian Civil Service, one of whom is under training, and of four Extra Assistant Commissioners, including the Excise Assistant who acts in Wardhā District also. At Kamptee, where there is a large town as well as a cantonment, the Cantonment Magistrate acts also as Sub-divisional Magistrate. The District is at present divided into four tahsīls, which are grouped as three subdivisions under Assistants who act as Sub-divisional Magistrates. But three of the tahsīls are unmanageably large and sanction has recently been obtained to the institution of a fifth tahsīl, with headquarters at Saoner town, which will be inaugurated as soon as its court-houses can be built. The Nāgpur tahsīl contains 559 revenue villages, of which 142 are uninhabited, Rāmtek 560 with 119 uninhabited, Umrer 678 with 229 uninhabited, and Kātol 494 with 134 uninhabited. The new Saoner tahsīl will contain 271 villages excised from Nāgpur, Rāmtek and Kātol. The total number of separate mahāls[1] was at settlement 2756. Each tahsīl has a tahsīldār and a naib-tahsīldār, and at present for the assistance of the tahsīldārs in plague-prevention there is a staff of one Plague Superintendent and four Deputy Superintendents or naib-tahsīldārs. The civil court staff of the District consists of a District Judge, an Additional

[1] Villages or parts of villages separately assessed to revenue.

District Judge, and 3 Subordinate Judges. There are also Small Cause Court Judges at Nāgpur and Kamptee. The former has a Registrar as his Assistant. There is ordinarily one munsiff for each tahsil, but owing to the pressure of work at Rāmtek and Kātol two munsiffs in each place have been appointed. The tahsildārs are Additional Judges in the courts of the munsiffs for civil suits involving landlords and tenants. The work of the criminal courts in the District is very heavy, and cannot be overtaken by the stipendiary magistrates. In the city two Honorary Magistrates have first class powers and separate courts, and there are also four benches, one with first-class and three with second-class powers. In Kamptee there are two Honorary Magistrates. At Rāmtek, Saoner, Kātol and Kalmeshwar there are benches, and two Honorary Magistrates sit singly in the towns of Umrer and Mowār. The Divisional Forest Officer has charge of the forests of both Nāgpur and Wardhā Districts. All the Divisional Officers of Nāgpur Division have their headquarters at Nāgpur.

Land Record Staff.

238. At the 30 years' settlement no regular land record staff was appointed for the District, the mālguzārs or village landlords being held responsible for the rendition of village papers showing the names of tenants, the area under each crop, and the rents collected. This arrangement did not work well. The returns filed by the mālguzārs were untrustworthy and largely understated the rent-collections, and they were written up by temporary clerks after superficial enquiry from the people without actual field-to-field visitation. The patwāri system was first introduced in 1884, when 259 patwāris were appointed for the District and a patwāri cess was levied from the mālguzārs at 5 per cent., the tenants contributing at the rate of a *kuro* (20 lbs.) of grain per holding. At last settlement it was found to be necessary to add 11 more charges and to raise the total number of patwāris to 270, of whom 69 belong to the

Nāgpur tahsīl, 66 to Kātol, 67 to Umrer, and 68 to Rāmtek. There are no hereditary patwāris in the District. At settlement the rate of the cess on the mālguzārs was reduced from 5 to 3½ per cent. and that of the tenants was fixed at 3 pies per rupee of rent. The patwāris collected their own dues from the tenants and received the remainder of their pay from the treasury. But this arrangement was abolished last year with the remission of the patwāri cess and the patwāris are now paid from Provincial revenues like other Government servants. The abolition reduced the taxation of the District by Rs. 33,000 per annum. The supervising staff consists of a Superintendent of Land Records and an Assistant Superintendent, with 12 Inspectors. The head-quarters of Revenue Inspectors are at Pārdi, Borī, and Kalmeshwar in Nāgpur tahsīl, at Mansar, Khāpa, and Thārsa in Rāmtek, Pīpla, Jalālkherā, and Kondhāli in Kātol, and at Kuhī, Belā and Bhiwāpur in Umrer tahsīl. Each has on an average 23 patwāris to supervise in 185 revenue villages. In each patwāri's circle the average number of villages is 9. The pay of patwāris is usually only Rs. 132 per annum and as the work is hard and now continuous throughout the year, this is not sufficient to attract capable young men to the service. The work has developed into two branches, one being that of returning seasonal crop reports for the Agricultural Department, which is fairly well done, and the other being the maintenance of land tenure records for the use of the civil and revenue courts, a responsible business not very effectively performed.

Crime and Litigation.

239. The record of serious crime in the District is not a heavy one. During the ten years ending with 1906 the average number of persons convicted of offences affecting human life was 10, of robbery and dacoity 12, and of grievous hurt 21. But offences against property are exceedingly numerous. The figures for house-breaking and theft averaged 274 annually from 1900 to 1906. The average annual number

of criminal cases disposed of during the 10 years ending with 1906 was 4096, of which 1656 were cognisable by the police and 2440 non-cognisable. These are large numbers. Many of them are cases under the Police Act and the Municipalities Act, due to the necessity of enforcing a fair standard of decency and sanitation in the towns, and many also are due to the nuisance of cattle-trespass, which is very prevalent in both towns and villages. Except in the city and on the railways there is no great amount of professional crime, but there is much of what may be called domestic crime. Most of the murders are wife-murders or husband-poisonings and cases of suicide or attempted suicide on the part of women are numerous. This tendency is due chiefly to the unsatisfactory social arrangements of the Koshtī caste, which is very numerous in the District. A Koshti usually has several wives, and many children, a custom imposed upon him by industrial conditions which force his hand-loom into competition with the machine-loom. He must have many helpers and his house becomes rather a factory than a home. The custom has other unsatisfactory results but those which come most often before the courts are the assaults and small riots between individuals or parties which arise from quarrels about the women. Cheating in marriage contracts is common and the elopement of married women more common. Agrarian riots also are numerous, and for this fact the only apparent reason is that the civil courts and their emissaries do not carry weight in the villages. It is probable that the impending revenue settlement and its local enquiries into rights and possession may reduce the number of recrudescent agrarian disputes. Civil litigation is heavier and more intricate than in most other Districts and parties are, as a rule, in contested cases represented by pleaders whose services on moderate fees are readily available. Although Nāgpur is an important trading centre, commercial suits are few, as parties prefer to settle them out of court by means of *panchāyats*. The bulk of the litigation is confined to petty suits

system and the increased consumption of liquor have very greatly added to the revenue receipts. The consumption of foreign liquor is fairly considerable in Nāgpur itself and in Kamptee town. The only other form of alcoholic liquor used in the District is *tāri*, the revenue from which is very small. The number of shops for its sale has recently been reduced from 133 to 86.

The consumption of opium is large and is increasing. In 1904-05 there were 75 permanent and 11 temporary shops, the yield of revenue being Rs. 1,19,415. But the number of shops was reduced in 1906-07 to 54 with permanent licenses and one with a temporary license. The consumption of *gānja* is also on the increase. The number of shops in 1904-05 was 77, since reduced to 56. But 11 shops for the sale of *charas* are now to be opened in the principal towns.

District Council and Local Boards.

243. The District Council of Nāgpur consists of 7 members nominated by Government and of 15 elected members. Under it are four Local Boards, one for each tahsīl. Those at Nāgpur, Rāmtek, and Kātol consist of 3 nominated and 10 elected members, and that at Umrer of 3 nominated and 11 elected members. The average income of the District Council for the decade ending with 1901 was only Rs. 76,686, the principal sources of revenue being local rates Rs. 45,151, ferries Rs. 3975, cattle pounds Rs. 9573, and contributions from Provincial revenues Rs. 4199. In recent years the income has increased to about Rs. 1,10,050, partly owing to better collection of the rates since the famines, partly to a steady increase in the income from cattle pounds, but chiefly from supplementary grants from Provincial revenues. Most of the Council's expenditure is on schools, on roads, and on the upkeep of cattle pounds and dispensaries. For these and other necessary objects its funds have long been inadequate and they are from time to time supplemented from Provincial

revenues. It is unfortunate that the local rates are exceedingly small and that the Council has no source of revenue, except perhaps the cattle pounds, which can be developed. Lack of funds has hitherto prevented the employment of an efficient staff for the supervision of its roads and buildings, but with the appointment of a Local Fund Engineer and by the aid of an enlarged grant from Government it is hoped that better progress will be made. The proposal to place all village markets under the control of the Council also promises to increase its resources and its work. Meanwhile very considerable improvements have of late years been effected, chiefly in the schools. Six large new buildings have been erected, the most considerable being the schools of Narkher and Gumgaon, and the pay of teachers in the primary schools of the villages has been substantially increased. Most of the funds for road improvement have hitherto been handed over to the Public Works Department for expenditure on the main lines of traffic. The small sum handled by the Council is insufficient for the upkeep of its many roads, but a useful scheme of roadside arboriculture has recently been adopted. The District stands in need of dispensaries, and the Council has recently received two charitable donations which will be utilised on new dispensary buildings at Kuhī and Pārseonī. The work of the District Council and of its Local Board members has for many years been excellent. In every part of the District gentlemen of good standing and education come forward readily to undertake public duty. The development of local self-government in the villages appears to depend merely on the development of the sources of revenue and on the appointment of an engineering staff.

Municipalities.

244. Besides the Nāgpur City and Civil Station, which are practically two municipalities, and the town of Kamptee, which is administered by a cantonment committee, there are six municipal towns in the District—Umrer, Rāmtek, Saoner,

Khāpa, Kalmeshwar and Mowār. Kātol, the headquarters of a tahsīl, was a few years ago notified as a town area and is now on its way to become a municipality.

Nāgpur.

245. The area of Nāgpur City and Civil Station is now above 20 square miles. In the census of 1901 its population was ascertained to be 127,734 souls, of whom 17,328 resided within the Civil Station. The municipal committee consists of 30 members, 10 of whom are nominated by Government while 20 are elected by the townspeople. There is also, for the administration of the Civil Station, a special standing sub-committee, consisting of 3 elected and 5 nominated members, which has separate powers and is practically a separate municipal committee. The income of both for the decade ending with the year 1901 was Rs. 328,000, but the net income now, apart from the loans which are continually necessary, is just over four lakhs. Most of this comes from the octroi tax which is closely administered and which has considerably increased with the expansion of trade in spite of the disorganisation caused by several severe epidemics of plague. But there are other important sources of revenue. The following table shows these and their growth :—

	1892-1893.	1905-1906.
	Rs.	Rs.
Octroi	1,67,000	3,25,000
Vehicle tax	...	21,000
Conservancy cess	31,000	36,000
Water-rate	27,000	39,000
Income from fines under Special Acts.	5,000	9,000
Income from markets, land, &c. ...	44,000	85,000
Total gross income ...	2,74,000	5,15,000
Deduct refunds, chiefly of octroi tax.	43,000	1,12,000
Net income ...	2,31,000	4,03,000

The latter sum is now quite inadequate for the growing needs of the city but the taxation amounts to only about



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Rs. 2-6 per head of population and can be considerably enhanced. Most of the revenue is expended on the water-supply, on conservancy arrangements, on drainage, street-lighting, and the improvement and maintenance of the roads. Small sums are contributed also to medical institutions and to schools. Of regular annual expenditure the chief items are those of Rs. 86,000 on conservancy, Rs. 29,000 on the upkeep of the 30 miles of metalled streets, and Rs. 26,000 on the maintenance of the present water-supply. But a large part of the outlay is exigent and irregular and depends on the receipt of loans from Government. With these and savings from the annual outlay much has been done in the past to extend the water-supply, which in 30 years has called for 9 lakhs of special expenditure. It is now quite inadequate and a new loan will be needed for the construction of a large second reservoir. The drainage of the city is a second problem which is under consideration. Since 1883 only Rs. 74,000 have been spent on this necessary branch of town-service, but a comprehensive scheme of drainage is now being formulated, and for the application of this another loan will be needed. In recent years, with the help of a special loan, much has been done towards the widening of lanes into streets, and the municipality has acquired considerable areas of land on which good houses are being built by private lessees. All the markets need extension, and for this purpose also a loan has been taken. The street-lighting is not yet good (it costs only Rs. 10,000 per annum), but this will be greatly improved if electric lights are provided from the power-house of the company which has contracted to lay tramways through the main streets. In recent years the city has undertaken several other enterprises. A fine Town Hall and Library have been built and a cotton market has been established near the railway station. Three steam fire engines have been bought and equipped and telephonic communication is being instituted. The prevention or restriction of the periodical epidemics of plague has also, at considerable expense, engrossed

the attention of the municipal committee. In brief, the city is in a state of rapid growth. Its finances do not as yet keep pace with its growth, and its taxation should speedily be doubled. The branch of taxation which at present is most inadequate is the conservancy cess. The Civil Station is more heavily taxed than the city and it is in some ways better equipped than the latter, but its present income of Rs. 70,000 is not sufficient for its growing needs. A large part of the Station is the property of Government and when all the new Government buildings are completed and their grounds laid out the appearance of the place will be very greatly improved.

Umrer.

246. The largest of the outlying municipal towns is Umrer, which has a population of 15,943. Its committee consists of 4 nominated and 10 elected members. For the decade ending with 1901 the average income of the town was Rs. 17,400 but by 1906-07 it had risen to Rs. 26,000. Most of this is derived from an octroi tax but there are receipts also from conservancy cess, cattle-registration fees, cattle-pounds and the fishing rents of the large lake round which the town lies. The incidence of taxation is only one rupee per head of population. Much of the municipal revenue is spent on the schools, comprising an important middle school which will probably be converted into a high school, and its three primary branch schools. These are well maintained. The conservancy arrangements have recently been improved, a small veterinary dispensary, one of the few in the District, has been established, and a new and enlarged market-site is being equipped. The committee also has acquired by purchase the whole of the town site from the mālguzār, H. M. Malak of the Mehdibāg institution. This gentleman has lately presented the town with two new buildings one for use as a rest-house and one as a library. Umrer is a charmingly picturesque town, its finances are in flourishing condition, and its trade is certain to increase largely now

that it has secured railway communication with Nāgpur. Besides being a centre of agricultural and general trade it possesses an important weaving industry.

Rāmtek.

247. The town of Rāmtek is noted chiefly for its picturesque situation on the side of a steep hill which is crowned by a fort and temple buildings. Its municipal committee consists of 11 members, of whom three are nominated by Government. The average annual revenue of the decade ending with 1901 was only Rs. 8,400, although the population in that year numbered 8,732. But by 1906-07 the income had risen to Rs. 14,600, chiefly from the octroi tax, but also from a conservancy cess, cattle-pounds, and market-dues. The chief objects of expenditure in recent years have been the schools, the roads and drains, markets and slaughter-houses, and conservancy. A good dispensary is maintained which is now being extended at the cost of a merchant who has manganese mines in the vicinity. The committee has lately introduced street-lighting and is considering plans for the extension and improvement of its market. A light railway between Kamptee and Rāmtek is on the eve of completion and in the near neighbourhood a very large irrigation lake is being constructed. The town has important manganese mines near it and is likely in a few years to become a busy centre of commerce. At present its chief local industry is the cultivation of the *pān* leaf.

Khāpa.

248. The town of Khāpa lies at the western end of Rāmtek tahsīl but is only 5 miles from Saoner and will soon be included in the new Saoner tahsīl. In 1901 its population was 7615. The municipal committee consists at present of 9 members all of whom are nominated by Government. For the decade ending with 1901 the town's average income was only Rs. 6500, but this has now increased to Rs. 11,600, half of which is derived from an octroi tax. The other sources of revenue are cattle registration fees, cattle-pound

fines, and market-dues, and the incidence of actual taxation is only 14 annas per head of population. The chief objects of expenditure are conservancy, education, roads and drainage. Street lamps have recently been introduced and a slaughter-house is being built. It is also proposed to build a solid masonry approach from the town to the Kanhān river. Most of the inhabitants are hand-loom weavers.

Saoner.

249. Saoner town lies at present within Nāgpur tahsīl, but it is soon to be the headquarters of a new tahsīl. Its population in 1901 was only 5821, but it is a prosperous centre of the cotton industry and is rapidly extending. The municipal committee consists of 3 nominated and 10 elected members. For the decade ending with 1901 its income was only Rs. 2800, but by 1906-07 this had risen to Rs. 10,400, derived from a house-tax, bazar dues, and cotton-market dues. The incidence of taxation on the townspeople is only 11 annas per head. The chief object of expenditure has hitherto been the cotton-market, on which the prosperity of the town mainly depends, and improvement in the conservancy and additions to the school buildings are now contemplated. It is probable that within a few years Saoner will become an important railway centre as well as the headquarters of a tahsil.

Mowār.

250. Mowār is a town of 4799 inhabitants in the extreme west of the District. Its committee consists of 3 nominated and 10 elected members. Its average annual income for the decade ending with 1901 was only Rs. 3600, but by 1906-07 this had increased to Rs. 6600, although the incidence of taxation then amounted to 12 annas per head. The town lives chiefly on its large market and on the improvement of this and the construction of a large *sarai*, or native rest-house, considerable sums are now being expended. In the past the chief municipal undertaking was the construction of a large

earthen dam to prevent the flood-water of the Koilār river from sweeping through the town.

Kalmeshwar.

251. Kalmeshwar is a small town of 5340 inhabitants lying 12 miles to the west of Nāgpur city. Its committee consisted of 7 members, two of whom were nominated, but it is now being reorganised. The average annual revenue of the town for the decade ending with 1901 was only Rs. 4400 but by 1906-07 it rose to Rs. 7000, derived chiefly from a house tax, bazar dues, a conservancy cess, cattle-registration fees, and cattle-pound fines. The incidence of taxation is less than 9 annas per head. Most of the municipal revenue is spent on the schools, but the conservancy arrangements have recently been improved, and private subscriptions have been received for the foundation of a dispensary.

Kātol.

252. Kātol, as has been noted, is not yet a municipality, but for three years it has been administered by a town-fund committee. Its population was 7313 in 1901, and is steadily increasing. Its first annual income in 1905-06 was Rs. 4761 but this has now increased to Rs. 7176, derived chiefly from a house tax, a latrine-cess, and fees from its weekly bazar and its cotton-market. Hitherto most of the fund has been spent on the construction of an excellent cotton-market, but efforts are now being made to improve the conservancy, the lighting, and the roads. A town hall has already been built from private subscriptions. The town is an important centre of the cotton trade and is making very rapid progress.

Total municipal income of the District.

253. The total net municipal income of the District, excluding that of the cantonment town of Kamptee, is now about 5 lakhs of rupees, of which about 3½ lakhs accrue from taxation of the townspeople. The town population was in 1901, 183,297 or 24 per cent. of the population

of the District. It has, in spite of severe epidemics of plague, increased considerably since 1901, but even if the figure of that year be accepted the incidence of municipal taxation is less than Rs. 2 per head of population.

Village Sanitation.

254. There are in the District many very large villages which become more and more insanitary as they develop in size. Three of these in the Kātol tahsīl, Mohpa, Narkher, and Kelod, have been brought under the operation of Village Sanitation Act, the first in 1905 and the others in 1906. They draw revenues from a house tax from cattle registration fees, from market-dues, and from brokers' license fees. In 1906-07 the income of Mohpā was Rs. 1955 and of Kelod and Narkher Rs. 1785 and Rs. 2328 respectively. This income is spent chiefly on conservancy, and on the improvement of the wells and roads. In Narkher especially the income is being steadily increased to meet necessary expenditure. In seven large villages the Mukaddam Rules of the Land Revenue Act have been for some years in force. These are Borī, Pātansaongī, Belā, Bhiwāpur, Kuhī, Kondhāli and Sāwargaon. Operations were begun in Bhiwāpur, Kuhī and Sāwargaon in 1888 and at Kondhāli in 1902. The sum raised annually varies from Rs. 260 to Rs. 650 but in most cases the assessments have recently been increased. During 1906-07 the Mukaddam Rules have been applied to 15 other villages—Nānd, Tālegaon-Kamptee, Khairgaon, Jalālkherā, Ridhorā, Belonā, Pāradsingā, Makardhokrā, Māndhal, Warorā, Veltur, Kodāmendhi, Pārseonī, Maundā, and Tākalghāt. The first assessments are all very small, and provide funds only for the pay of a small conservancy staff, but the operations appear to be popular in prosperous villages and the local revenues can conveniently be increased from year to year to meet the expense of new wells. Hitherto it has been usual for the District Council and the tashīl officials to levy special subscriptions for the improvement of water-supply, but the exaction of comparatively



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GOVERNMENT HOUSE, NAGPUR.

large contributions from a few individuals is often difficult and the procedure can be regularised.

255. Nāgpur, as headquarters District of the Provinces, possesses a large number of Government buildings. But owing to the poverty of the Province in the past few of these are of any archithctural importance. The following is a short list of the principal ones :—

Public works.

	Date of construction.	Cost.
		Rs.
Kamptee Church	1832	46,000
Old Secretariat office	1860	1,56,000
Nāgpur Church	1861	27,000
Museum	1871	31,000
District Court	1873	1,04,000
Mayo Hospital	1874	43,000
Government House	1891	1,15,000
Law Courts	1893	1,75,000
Victoria Technical Institute	1906	1,60,000

Of these the Hospital and the Museum have most architectural pretensions, but Government House is a commodious building on a magnificent site, and the Victoria Institute, though built of red brick, is an imposing edifice. The development and extension of the Province has necessitated considerable outlay on new buildings. Of these the finest is the new Secretariat building, now nearing completion, which is to cost eight lakhs of rupees. Its ground-plan is a quadrangle enclosing a spacious open courtyard. The building is double-storeyed and the entire facade is of massive stone masonry in alternating courses of black basalt and grey sandstone. The exterior is enriched by a projecting cornice and carved work in grey sandstone, and a very effective screen of pierced and carved stone-work forms a filling between the main piers and shades the windows from the direct rays of the sun. The new Law Courts are of similar design and construction but are single-storeyed. Several other offices are being built and in the

city a new central police Station-house, costing Rs. 41,200, is nearing completion. In the Civil Station a large area of land has been taken up by Government which has been laid out with roads, public gardens, and bungalow sites. Numerous new houses have been or are being built on this area, which also contains the new Central Provinces Club building on an excellent site above the race-course. The District is very poorly provided with roads. The Nāgpur-Jubbulpore road alone can be described as complete. This was constructed before the days when railway construction appeared to justify cessation of road-building. It contains at Kamptee over the Kanhān river one of the finest masonry bridges in India. It was built in 1870-74 at a cost of 12½ lakhs of rupees. The road is bridged throughout but in recent years its width and depth of metal for 20 miles from Kamptee northwards has not been sufficient to stand the wear and tear of its heavy traffic in manganese ore and timber. This will now, however, be relieved by the Kamptee-Rāmtek railway. There are four other fairly good roads radiating from Nāgpur. One is the Great Eastern Road to Bhandāra, another the Nāgpur-Chānda road through Umrer, another the Nāgpur-Kātol road, and the fourth is the Nāgpur-Saoner road which branches at Saoner into two lines running to Chhindwāra and Betūl. The two last are each year badly cut up by their heavy traffic. All four are only partially bridged and only partially provided with causeways and culverts. Improvements are now in progress, but new roads are needed in every part of the District, especially in the south and west. Of the new routes projected the most important is the direct highway from Nāgpur to Amraoti *via* Kondhāli. The Irrigation Department has for some years been at work on schemes for the District. The most important of these is the project for damming the Sūr river near Rāmtek in order to provide a very large irrigation lake. This work is now being rapidly pushed forward and when complete will add greatly to the resources of the District. The projected



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VICTORIA TECHNICAL INSTITUTE, NAGPUR.

new municipal reservoir for Nāgpur city will be another fine lake.

Police.

256. The strength of the police force in the District is 942 officers and men, and there are also 53 officers and men belonging to the railway police. The details of the District force are: 1 District Superintendent, 1 Assistant Superintendent, 1 Deputy Superintendent, 4 Inspectors, 15 Sub-Inspectors, 3 Sergeants, 129 Head Constables, 766 Constables, 2 Daffadārs, 20 Sowārs. The following towns are specially provided with separate forces:—Nāgpur and Sītābaldi 153, Kamptee 83, Umrer 34, Rāmtek 27. The annual cost of the force is Rs. 1,53,000. The remuneration of the men has lately been increased but as rates have risen greatly in all other employments it is still very difficult to procure local recruits, and most of the members of the force are men from Upper India. The city and Civil Station at present are divided, for purposes of watch and ward, into 30 circles, and the men are scattered among a large number of large and small posts. But steps are being taken to concentrate most of the force in three convenient centres. The whole District is divided among 11 Station-houses and 32 outposts within Station-house circles. This arrangement also is now being revised and there will soon be 22 Station-houses, and few or no outposts.

Kotwārs.

257. At the time of the 30 years' settlement the owners of villages were made responsible for the local watch and ward, and the kotwārs or watchmen were left in an undefined position as their servants. They were remunerated partly by the cultivation of service-land held from the mālguzār, and partly by dues of grain paid by the villagers. They received also the hides of cattle dying within the village. The post was usually regarded as an hereditary one and on the death of an incumbent both duties and perquisites were subdivided among his descendants. This arrangement was not without its advantage, for there was always some kotwār available

for duty in the absence of others. Its disadvantage was that subdivision led to slackness of discipline and in case of default it was practically impossible to fix responsibility. Accordingly at last settlement the system was revised. One kotwār only was selected for each village, or in the larger places, for each block of 50 houses, and the remuneration was restricted to him. The result of the change was a reduction of the number of kotwārs from 5398 to 2142. The payments in kind were commuted into cash payments, the value of land held from the mālguzār being deducted from his contribution. The following figures show approximately how the remuneration is now made up :—

Number of kotwārs.	From mālguzārs		From tenants Cash.	From sales of hides.	Total.
	Cash.	Service land.			
	Rs.	Rs.	Rs.	Rs.	Rs.
2142	11,000	12,900	49,000	1000	82,900

The average amount received by each man is less than Rs. 39 per annum. This is but small pay and the work becomes heavier each year as District administration becomes more thorough, so it is not surprising that the kotwārs, most of whom are Mahārs, are as a rule discontented and do not usually render good service. In the neighbourhood of the towns many of them supplement their small incomes (which are about half the earnings of a female factory-hand) by acting as brokers in the cattle-markets or by driving a retail trade in fruit. The impending re-settlement of the District will probably occasion a further revision of the system.

Jails.

258. Nāgpur has a Central jail of the first class under the charge of a Superintendent, who is an officer of the Indian Medical Service. It has accommodation for 1389 prisoners, including wards for 111 females and 30 Europeans. The daily average number of prisoners for the past ten years has

been:—*1897*, 1268; *1898*, 1086; *1899*, 807; *1900*, 1032; *1901*, 1097; *1902*, 949; *1903*, 671; *1904*, 709: *1905*, 649; *1906*, 636. The number has gone down year by year, and the chief reason for the satisfactory decrease is the prosperity of the District. Of late years crops have been satisfactory and there has been a very steady demand for labour for the cotton factories, the manganese mines, and for the construction of railways, roads, buildings, and irrigation tanks. During the past ten years there have been 499 literate convicts, of whom 188 have been Government servants. The cost per head of dieting the prisoners was in 1897 Rs. 41-6-1 and in 1901 Rs. 45-3-0, but after that year a considerable reduction was effected and in 1906 it was only Rs. 23-2-6. In the last year the total cost of maintaining each prisoner was Rs. 94, but the average wage value of the work done by those who were at work was Rs. 140. The main industry of the jail is the printing of Government forms. There are 30 presses at work. The other profitable industries are carpet-weaving and upholstering in cane and bamboo. A comparatively small amount of stone-breaking and aloe-pounding is done also, chiefly as a punitive form of work. There is an excellent garden and the sanitary condition of the jail is remarkable. It is one of the most sanitary and industrious parts of Nāgpur city.

Education.

259. The following statistics show the progress of education for the last three years:—*1905*, 193 schools, 13,788 scholars; *1906*, 189 schools, 14,027 scholars; *1907*, 193 schools, 14,236 scholars. The headquarters of the District, being also the headquarters of the Province, contains several of the leading educational institutions, *viz.*, 2 aided colleges, containing 168 pupils; a law class with 23 pupils; the Victoria Technical Institute (which houses the Agricultural college and advanced science classes), a Normal school, with 80 students and others. The District contains a Government High school at Kamptee with 50 and 135 boys in the High and middle

departments respectively; 3 aided high schools in Nāgpur with 412 High school pupils, and a small unaided Bengāli High school. Of the aided High schools, one is attached to the Hislop college under the management of the United Free Church Mission; while the Neill city High school and Patwardhan High school are managed by committees. There are in the District 4 English middle schools under municipalities, at Rāmtek, Umrer, Saoner, and Kalmeshwar, and one at Kātol under the District Council; these total 332 scholars. And there are also 10 aided English middle schools, under either missions or other bodies, one important one being the Anjuman school in Nāgpur. These contain 841 scholars. There are 15 vernacular middle schools, 6 of which have training classes; but others also prepare a few candidates for the Teachers' Certificate Examination. Primary education is represented by 131 schools containing 8967 scholars, which gives an average of 68 per school. The majority of these are in villages, but there is a certain number of small private schools in the city, mostly aided by small grants. These are under departmental inspection, but on the whole are not as efficient as the rural schools, which are under the management of the District Council. Under the head of female education there are 16 girls' schools with 867 scholars. There are also an English middle and a vernacular middle school for girls, supported by the Free Church Mission, and containing 30 and 124 girls respectively. Out of the total of 14,236 scholars, the numbers under various stages of instruction in 1906-07 were as follows:—200 were in receipt of collegiate education, 4043 of secondary, 9834 of primary education and 59 were in special schools. The percentage of children under instruction to those of school going age was 46·6 in the case of boys, and ·36 of girls. The former is a high figure and is partly due to the extent of education in Nāgpur city, where there are 45 different educational institutions. In the census of 1901 the percentage of males returned as literate was 9·15, and of

females ·65 ; the former being a high figure as compared with other Districts. The percentage of Hindus was 8·15 ; that of Musalmāns being, as it usually is, much higher, *viz.*, 18·66. Expenditure on education increased from Rs. 1·99 lakhs in 1904-05 to Rs. 2·52 lakhs in 1906-07. Of the latter sum Rs. 1·07 lakhs were contributed by Provincial revenues, Rs. 43,000 by the District Council, Rs. 16,000 by municipalities, Rs. 35,000 from fees, and Rs. 52,000 from private sources. The above account does not include European education. This comprises 4 schools,—the Bishop's High school (English mixed), St. Francis de Sales school for boys (Roman Catholic Mission), and Girls' Convent schools in Nāgpur and Kamptee. All these are High schools. They contain 52 children in the High school stage, 177 in the middle, and 375 in the primary ; or a total of 604. There is an industrial class attached to the Roman Catholic boys' school. The total expenditure amounts to Rs. 76,000. The pupils are prepared for European primary, middle and high certificates and the Allahābād University Entrance Examination. A few pupils in St. Francis school read up to the First Arts. The District is under the Inspector of Schools, Nāgpur Circle, and has two Deputy Inspectors, whose ranges are called the Nāgpur and Rāmtek ranges respectively. Girls' schools and European schools are under their special Inspectress and Inspector.

Medical relief.

260. There are in all 20 hospitals and dispensaries in the District. Twelve of these are at headquarters and include the Mayo and Dufferin Hospitals, the Mure Memorial Mission Hospital, two railway and two Mill dispensaries. The Mayo hospital is a well-equipped institution with 84 beds. It has private wards and accommodation for Europeans and has recently been improved at a cost of Rs. 22,000, spent chiefly on its excellent operating room. The Dufferin Hospital for women is under a Lady Doctor and contains 35 beds. The Mure Memorial Hospital, which is maintained by the United Free

Church of Scotland Mission, is also under a Lady Doctor. It contains 30 beds. There are 12 public dispensaries in the District. Five of these are in the city and there is one at each of the following towns :—Umrer, Rāmtek, Khāpā, Kātol, Mowār, Kuhī and Saoner. At Saoner there is a second dispensary managed by the Scotch Free Church Mission. At Saoner and at Kuhī special buildings have not yet been constructed but funds have been collected for the purpose. Private subscriptions have recently been collected also for the establishment of two more public dispensaries at Kalmeshwar and Pārseonī. At present only two of the outlying dispensaries have wards for in-patients, namely, Umrer with 11 beds and Kātol with 8, but at Khāpa a small ward is being added, and at Rāmtek a wealthy contractor has promised to provide two large wards. In the year 1906, 1297 indoor and 259,212 outdoor patients were treated at the twelve public dispensaries of the District, and the average daily attendance was of in-patients 66 and of out-patients 1588. Nine of the dispensaries have midwives attached to them. The income of these twelve institutions in 1906 was Rs. 55,377, derived from Provincial revenues, from local funds, and from private subscriptions. At Nāgpur there is one of the two Provincial lunatic asylums, a large institution with excellent grounds, in which at present there are 150 inmates. It is being enlarged and will soon accommodate 278. Vaccination is compulsory only in the Nāgpur and Umrer municipalities, but it is carried on with fair success throughout the District, the staff employed consisting of a Superintendent and 17 vaccinators. Its annual cost is only Rs. 3460. The number of successful primary vaccinations was in 1890-91, 22,561 or only 32 per mille of the population. In 1900-01 it was 25,310, or 33 per mille, and in 1905-06 it was 27,149 or 42 per mille.

APPENDIX.

GAZETTEER OF TAHSILS, TOWNS, IMPORTANT VILLAGES, RIVERS AND HILLS.

APPENDIX.

GAZETTEER OF TAHSILS, TOWNS, IMPORTANT VILLAGES, RIVERS AND HILLS.

Adasa.—A small village in the Nāgpur tahsīl, 17 miles north-west of Nāgpur, with a population of about 300 persons. The village contains five old temples. In the temple of Ganpati the image consists of a single stone set up so that worshippers may walk round it. On a hill near the village is a temple of Mahādeo with three *lingas*, which are believed to have come out of the ground by themselves. There are also two stone tanks built by members of the Bhonslā family. Small religious fairs are held here in November and January. The proprietors are Gosains, one of whom is also the manager of some land granted for the maintenance of the temple. Many of the residents are Brāhmans.

Ambhora.—A small village (population 224) in the Umrer tahsīl, 37 miles east by south of Nāgpur on the Waingangā river bordering Bhandāra District. It contains a well-known temple of Chaitanyesvara, and the tomb of a Hindu saint, Har Har Swāmi. Three religious fairs are held here during the year and attended by people from the Nāgpur and Bhandāra Districts. The village is a mere strip of land on the river-bank and the cultivators retail their produce to the pilgrims. The proprietor is a Marāthā Brāhman, who has some fisheries established by ancient custom.

Baregaon.—A large and fertile village in the Rāmtek tahsil, 5 miles north of Khāpa, and 25 miles from Nāgpur. The population increased from 1400 in 1891 to 2000 persons in 1901. The village has a fine temple of Vitthal Rukhmai, recently constructed by the proprietor. Wheat from Chhindwāra is sold at the market here. The village has a primary school and has been perfectly partitioned into three shares, being owned by the well-known Kunbī Deshmukhs of Bāregaon.

Bela.—A large village in the Umrer tahsīl, about 11 miles from Borī station and on the Wunnā river. The population in 1901 was about 4300 as against more than 4600 in 1891. The village contains a temple of Dattātreya, an incarnation of the god Siva, who is much venerated in the Marāthā country. On the festival of Dattā Jayantī in November the statue of the god is taken round the village on a wooden horse and chariot with music and occasionally a display of fireworks. A fair is held in connection with the festival and the attendance is about 10,000 persons. Large numbers of *rengīs* or light carts for trotting bullocks are brought for sale. The village has a number of betel-vine gardens and was formerly well known for the blankets and *newār*-tape made here, but this industry is declining. A considerable weekly market is held on Saturdays. Belā has a primary school and police outpost. A cess amounting to about Rs. 380 annually, is raised for sanitation. The proprietors are a Deshmukh family of Kunbīs.

Belona.—A large agricultural village of the Kātol tahsīl, lying between Narkher and Mowār, in the north-west corner of the District, fifty miles from Nāgpur. Its population was 3748 in 1891 but fell to 3390 in 1901, and is now stationary or retrograde. The cultivating castes are principally Mālīs and Kunbis, of whom a large proportion are *mālik-makbūzās* as or plot proprietors. There is also a considerable industrial community of Koshtis, Telis and Mahārs, with an undesirably large sprinkling of Mārwāris, whose operations have caused an unusual amount of indebtedness among the cultivators of this fine village. The Mahārs weave coarse carpets (*tarhaos*) and blankets (*kambals*). A small assessment is levied for sanitary purposes. Belonā has a primary school, a post office, and a cattle-pound.

Bhiukund.—A small village (population 146) in the Umrer tahsīl, 22 miles north-east of Umrer. There are three caves here and the local story is that the Pāndava brothers dwelt in them for twelve years of their exile. In one of the caves

are six shapeless images, which are supposed to represent the Pāndava brothers and their mother Kuntī. Bhiukund is a corruption of Bhīmkund (Bhīma's pool); Bhīma being one of the Pāndavas. The same name is found elsewhere, no doubt with the same story attached to it. There is a fine tank at the foot of the hill. The proprietor is a Brāhman widow.

Bhiwagarh.—A small village in the Rāmtek tahsīl, 18 miles north of Nāgpur on the bank of the Pench. A hill by the village contains the remains of an old fort, its summit being encircled with walls made of ponderous masses of rock. The lines of defence over the pathway leading up the hill-side are constructed with some skill and are attributed by the people to the Gaolīs.

Bhiwapur.—A large village in the Umrer tahsīl, 15 miles south of Umrer on the Chānda road. The name is a corruption of Bhīmapur and the village is said to have been founded by a Gaolī of the name of Bhīmajī. The population in 1901 was 4700, having increased by 500 since 1891. The village contains the ruins of an old fort said to have been constructed 300 years ago by an ancestor of the Gond Rājās of Deogarh. There are weaving and dyeing industries and a cattle-market of some importance is held on Fridays. The Nāgpur-Brahmapurī railway will pass through the village. Bhiwāpur has a police outpost, a vernacular middle school, and an inspection bungalow. A sanitation cess amounting to about Rs. 300 annually is raised under Section 161 (*a*) of the Land Revenue Act. The village is held free of revenue in perpetuity by a member of the Gūjar family which is related to the Bhonslas.

Bori.—A station on the Great Indian Peninsula Railway, twenty miles south by west of Nāgpur, on the Wunnā river. The population in 1901 was 3023 and is stationary. The people are a mixed lot, mostly agricultural, and the Kunbis are the strongest caste. The lambardār mālguzār is Rāmchandra Rao Būti, an Honorary Magistrate of Nāgpur city. He

has been empowered to raise a small cess for purposes of sanitation, but the working of the fund and the cleanliness of the town are far from satisfactory. The town is not progressive in spite of its transport facilities and the fertility of the surrounding country, and the solitary ginning factory belonging to Nārāyan Badrīnāth of Kamptee is closed at present. The vernacular school has 172 pupils, of whom eight are in training for the Nāgpur Normal School. There is a girls' school attended by 48 girls—a flourishing and successful institution for such a small town. Borī has a police Station-house. There is an important Roman Catholic Mission at Thāna, six miles away, which supports, educates and trains to various trades a large number of native boys and girls including fifty Government aided famine orphans. There is a small Tuesday market attended by about 400 people. The town is said to have been founded by one Lodhī Khān, a Pathān, in later Bhonsla times, and gets its name from the *ber* (Mar. *bor*) or wild plum which was abundant in the neighbourhood. When Pindāris came towards Borī, Lodhī Khān placed an offering of a sword in front of Gorhe Deo who caused it to glitter, so that the town seemed on fire and the Pindāris turned away.

Bor River.—The Bor, a tributary of the Wunnā, is more like a mountain torrent than a river during its course in Nāgpur District. Rising among the hills near Bazārgaon, it rushes down a winding and rocky channel between the Kondhāli uplands and the Kauras plateau through the village of Aregaon in Wardhā. Its narrow valley is very fertile, and the high well-wooded cliffs on either side render it the wildest and most beautiful spot in the whole of Nāgpur.

Dahegaon.—A small village 12 miles south of Nāgpur. It contains a fine tank built by the Bhonsla princess Bakā Bai, and belongs to the family estate.

Dhapewara.—A town of something over 3000 inhabitants, on the bank of the Chandrabhāga river, five miles north of Kalmeshwar. It has a school and a post office.

The majority of the people are Koshtīs, who weave ordinary inexpensive fabrics. The town is the Mecca of the Koshtīs of the Marāthā country, who come from all over the Central Provinces, and even from Poona, to worship at the sepulchre of their Sir Panches. The line of the Sir Panches was founded over 300 years ago by Kolibā, who was in direct communication with Krishna and who wrote many sacred writings inspired by the God and venerated by all Koshtīs. The originals are still extant scattered among the Koshtī houses of the town. The direct line of Sir Panches has been unbroken, and is now represented by Yādo Rao, a man of much power and influence. The town possesses a notable temple to Vithobā, overlooking the river. It was built by Umāji Abā, Dīwān to Rājā Bāji Rao Bhonsla. He was a very pious man and used to make an annual pilgrimage to Pandharpur, near Poona, to worship Vithobā in his temple there. But the increasing infirmities of age threatened to frustrate his piety and he was much vexed in mind until one happy night the God appeared to him, and said that if he built a temple on the banks of the Chandrabhāga river his worship would be acceptable there. There are the remains of an old fort, built in the time of Raghujī I, but its high walls did not save the town from systematic looting by the Pindāris.

Digras.—A small village in the Kātol tahsīl about 3 miles south of Sāwargaon. Between Digras and Sāwargaon are a number of stone circles attributed to the Gaolīs.

Dongartal.—A small village lying about two miles to the west of Deolāpār and of the Nāgpur-Seonī road. It gave its name to a pargana or small subdivision, which is well forested, and is a resort of Gaolī cattle-breeders.

Ghogra.—A village in the Kātol tahsīl about 14 miles from Kātol to the west near Saongā-Lohāra. On a hill known as Mānnāth about two miles to the south-east of the village are some curious old buildings of massive stone with good carving. They consist of a centre room with

portico and two side-rooms, and are built without cement. They are attributed by the people to the magician Hemādpanth, who is supposed to have built 25,000 temples in one night in pursuance of a vow. To enable him to fulfil it the sun stood still and it was night for six months. The village has a primary school.

Ghorad.—A large village about 15 miles north-west of Nāgpur near the new Kātol road and on the Jām river. There are a number of stone circles between Ghorād and Kohāli.

Gumgaon.—A large village of 3359 (1901) inhabitants on the Wunnā river, eleven miles south of Nāgpur. The majority of the population is composed of Koshtīs and Telis. The Koshtīs weave women's cloths, while the Telis have generally taken to cultivation. There is a fairly large and prosperous Mahār community who have cultivation, deal in cotton, and make linseed oil. Several of their members are rich men. There are about fifty Dhangars who weave sacking and coarse woollen blankets. Rājā Raghujī Rao is the sole proprietor. Arrangements for the sanitation of the village by the levy of a cess are now being made. The main source of the water-supply is from the Wunnā river and is exceedingly bad. The wells are few and privately owned, and the provision of several good public wells is a matter of urgent importance. The village has a vernacular middle school. The people say that it formerly belonged to Hyderābād and was given to Bakā Bai, great-grandmother of the present Raghujī Rao Bhonsla, by a Nawāb of the Nizām's. Troops marching north from Secunderābād usually halt at Gumgaon.

Hingna.—The two distinct villages of Hingnā with 996 inhabitants (1901) and Raipur with 1937 separated by the Wunnā river are usually referred to jointly as Hingnā. They lie nine miles south-west of Nāgpur. The lambardār mālguzār is Rājā Azam Shāh, in whose family the town has been since the times of the Gond Rājā. The largest caste are the Mālis who are ordinary cultivators. There are



Bemrose, Collo., Derby.

STONE CIRCLE AT JUNAPANI.

many Dhangars who weave rough woollen blankets and have cultivation and many Koshtis who weave silk-bordered *lugrās* of medium quality. The village has a vernacular middle school and a small sanitation fund is levied. Under the Bhonsla Rājās Hingnā was the headquarters of a pargana. The *Kamaishdār* had his headquarters in the mud fort, and was supported by a Risāldār (cavalry officer) and a regiment stationed at Wānadongri, a mile away. The mosque built by the regiment still stands, but the regiment was removed over seventy years ago, to Sonegaon. There are four or five stone circles to the north of the village site, said to have been made by the ancient Gaolis.

Jalalkhera.—A village in the Kātol tahsil, situated on the Wardhā river, fourteen miles north-west of Kātol, and fifty-three miles from Nāgpur. With Gaulkherā and Mundmālipur it forms one inhabited village of about 1900 inhabitants. Formerly these three villages with Amner across the river were one large town, believed to have had a population of 30,000. Amner is now little else but ruins, and the other villages are of the ordinary rural type. The place is distinguished for its fine Marāthā fort, which is probably the most notable building in the tahsil. It formed at one time the western outpost of the Bhonsla kingdom, and is a somewhat ambitious effort in fortification of the mediæval kind. It is built on a rock island in the Wardhā river, and its walls fall more or less precipitately to the water on three sides. The gate is on the fourth side, and is approached by a curved road cut out of the rock and commanded by the two gate towers. The people say that another fort belonging to Hyderābād guarded the passage of the river from the Berār side.

Junapani.—A small village in the Nāgpur tahsil, 7 miles west of Nāgpur. In the neighbourhood of the village are numbers of the stone circles which are also found elsewhere in the District. The stones are not large and unless looked for they scarcely attract attention. It is supposed that they

mark the site of the temporary encampments of the old pastoral tribes in their wanderings from place to place. Occasionally iron nails and tools are found beneath the stones.

Kalmeshwar Town.—A small town on the Nāgpur-Kātol road, lying 12 miles to the west of the city in a rich plain of wheat land. In 1891 the population was 5921. This has fallen by 1901 to 5340. It rose to about 6000 in 1906, but towards the end of that year a severe epidemic of plague carried off 1300 of th inhabitants. Most of these are Mālis and Koshtīs, but Telis, Baniās, and Brāhmans are also represented. The town has had a municipal committee from 1862, and formerly an octroi duty, abolished in 1876, was levied. The first municipal committee elected under the present system of local self-government was that of 1882. It has recently become necessary to substitute a committee nominated by Government. The principal sources of municipal revenue now are a small house-tax, a conservancy cess, considerable bazar-dues, and cattle-registration fees. In 1900 the total income fell short of Rs. 3000. It is now about Rs. 7000. Formerly Kalmeshwar was an important weaving town. Its cloth-produce, however, has not been able to compete with that of Nāgpur, nor has it benefited by the recent great expansion in cotton-growing. The produce of the rich plain which surrounds it goes directly to the city, and that of the outlying villages to the west and north-west goes to the factories of Kātol and Saoner. The proposed construction of a railway line through Kalmeshwar to Amraoti will benefit it, but there is no prospect of a rapid development of industry. The town is, in fact, an agricultural market town, depending largely on its weekly market where 2500 people usually assemble. In the open season about 250 head of cattle are sold weekly. By far the most important public institution is the English middle school, which has an attendance roll of 62 pupils. The branch school, teaching Marāthi, has 172 pupils. These serve a

country-side of large villages and on them half of the municipal income is spent. The buildings are not commodious, and a movement is on foot to provide a school for girls, and a boarding-house for boys from outlying villages. Besides the school there are, at the central market place, a small post office and a police Station-house. Since the last epidemic of plague, subscriptions have been given towards the establishment of a dispensary on a site to the south-east of the town. Its institution will be a boon to Kalmeshwar itself and to many large villages in the neighbourhood. The tradition of the town is that when Akbar Khān established himself in Poona he lent a small army to a Chhatrī, by name Jai Singh Rānā, who defeated the Gonds at Pārseonī and fixed on Kalmeshwar as his headquarters. For some generations his descendants administered the surrounding country under the title of Deshmukhs, and the present Deshmukh families of Kalmeshwar and Kātol claim descent from these Rājputs.

Kamptee[1] (*Kāmpti*) **City.**—A cantonment in the Nāgpur District situated in 21° 13′ N. and 79° 12′ E. on the Bengal-Nāgpur Railway, and 10 miles from Nāgpur, 529 from Bombay, and 692 from Calcutta. It stands on an extensive plain of black cotton soil on the right bank of the Kanhān river, and is embowered in luxuriant trees. It extends a little over four miles along the river bank from the Artillery Lines on the west to the Transport Lines on the east. At its highest point it is 996 feet above the sea. After the brilliant action at Sītābaldī in 1817 a large number of troops were located in Nāgpur and formed the Nāgpur Subsidiary Force. Nāgpur, however, proved to be so unhealthy that another site had to be sought for. In 1821 the Cantonment of Kamptee was established and took its name from a small village on the left bank of the Kanhān river. Prior to 1821 there were no habitations except one or two hamlets on the bank of the river but the villages

Description of the cantonment.

[1]This article is written by Lt.-Col. Kreyer, Cantonment Magistrate.

of Anjini, Wāregaon and Yerkherā were in existence. Practically the whole of the cantonment, the area of which is 8¼ square miles, is made up of land acquired from these three villages.

The revenue from the village lands situated within the cantonment was somewhat hastily relinquished by the Commanding Officer in 1858. When the cantonment was established in 1821, during the regime of Brigadier-General Adams, a great deal of care and thought must have been exercised in its formation. It is laid out on the principle of a camp, the officers' quarters being in the rear and stretching in one narrow line along the river bank. Then comes the broad handsome road, called the Mall, extending from one end of the station to the other, and which is rendered agreeable and cheerful by its avenue of splendid trees and its neat tamarind hedges. After the Mall come the lines of the different units in regular order. On the right the Artillery, then the British Infantry, then the Staff, then the Native Infantry, then the Native Cavalry and then the Transport Lines on the extreme left. Open spaces and spacious grounds for parade and recreation purposes stretch as far as the Bāgdurā nullah, and beyond that again, is situated the large native town which is officially called the Sadar Bazar. The cantonment proper is thus cut off entirely from the town, and the only bazars to the north of the Bāgdurā nullah are the smal ones known as the Dhobi Bazar, the Gorā Bazar and the old Cavalry Bazar. The Sadar Bazar was very well laid out originally. It is built in regular streets at right angles to each other but at some period in the history of the cantonment the Mārwāris appear to have been allowed to make additions to their houses in the most promiscuous manner and the quarters of the town inhabited by them are much overcrowded. The Sadar Bazar was under the control of a municipality until 1886. The cantonment proper was under the control of the military authorities who were under the Commander-in-Chief of the Madras Army. This state of

things could not possibly continue and since 1886 the whole place has been administered under Cantonment Law.

The Garrison.

In 1821 the Garrison was very large. The exact strength cannot be ascertained but a plan of the cantonment, made in 1858, shows that there were lines for 2 Batteries of Artillery, one Regiment of British Infantry, 3 Regiments of Native Infantry and one Regiment of Native Cavalry with lines for elephants and camels in addition. In 1888 the cantonment ceased to belong to the Madras Presidency and came under the jurisdiction of the Commander-in-Chief of the Bombay Army. In 1889 the Garrison consisted of a Battery of Artillery, one Regiment of British Infantry, one and a half Regiment of Native Infantry and one Regiment of Native Cavalry, the whole forming the Nāgpur district under the command of a Brigadier General. In 1891 the Regiment of Native Cavalry was finally removed from Kamptee and in the same year the extra half-battalion of Native Infantry was transferred to Sambalpur. In January 1905 orders were issued under Lord Kitchener's reorganization scheme for the eventual abandonment of Kamptee as a military station. The military district of Nāgpur had already ceased to be of much importance, as its outlying stations of Raipur and Sambalpur had been denuded of troops. In March 1905, as a consequence of the scheme just referred to, the staff of the Nāgpur district was transferred to Ahmadnagar and since then Kamptee has been commanded by the senior Combatant Officer in the station assisted by a fourth-class station staff officer. It came directly under the General Officer Commanding the 5th (Mhow) Division in March 1905 but now (1907) forms part of the Jubbulpore Brigade. The importance of Kamptee is declining and it may perhaps be abandoned altogether, but for nearly 90 years it has been a model cantonment for neatness and cleanliness. General Burton, who was a staff officer in the Cantonment from 1858 to 1865, in his book "An Indian Olio," published in 1888,

says 'It presents a regular and well ordered appearance beyond that of most other military stations in India'. In 1907 it certainly has not deteriorated and it is remarkably free from the diseases, such as enteric and others, which attack the British soldier in India. It has an honourable record, not the least feature of which being the loyalty of the garrison during the Mutiny. There was an attempt to rise in Nāgpur but it was promptly checked with the assistance of the Madras Troops stationed in Kamptee and then the whole garrison, which included the old 3rd Regiment of European Infantry and the still famous 1st Madras Pioneers, marched to Bāndā and served under General Whitlock until peace was restored. The existence of six good camping grounds in the vicinity, still called sanitary camps but for which there is no use as such, should not be lost sight of. Their names are Yassumbā, Tekāri, Seurah, Gāda, Surādevi and Kurādi. Their limits are marked by boundary pillars and they are all provided with wells. Kurādi is an excellent place for the field training of troops not exceeding half a battalion and, in conjunction with the Surādevi hills, forms the only possible position in the immediate vicinity of Kamptee where manœuvres with ball ammunition can be carried out with safety.

Population and income.

As the military population has declined in numbers so has the civil. The population in the last four years of census, including both military and civil, was as follows:— *1872*, 48,831; *1881*, 50,987; *1891*, 43,159; *1901*, 38,888. The population in 1901 included 26,379 Hindus, 9852 Muhammadans and 1851 Christians, of whom 1306 were Europeans or Eurasians. The number of these latter was reduced by the absence of half a battalion of the British troops. Owing to two severe plague epidemics in 1903 and 1906, and to other causes, the population in 1907 is probably not more than 30,000. Kamptee is the fourth town in the Central Provinces in respect of population. The average receipts

and expenditure for the last decade were roughly 1·1 lakhs. In 1906-07 the receipts were Rs. 1,01,486 of which about half were derived from octroi, and the charges were Rs. 1,05,079 but the latter included an expenditure of over Rs. 6000 on plague measures including a campaign against rats. Nearly 14,000 rats were caught in traps. The decline in the gross octroi receipts from a lakh to half a lakh during the last few years is an indication of the decline in the town's trade. During the Marāthā rule traders flocked to Kamptee on account of the comparative immunity from taxation which they enjoyed within the cantonment and a large commercial town thus grew up alongside that portion of the station which was occupied by the troops. Owing to its favourable situation on the roads leading to Nāgpur from the Sātpurā plateau, Kamptee for a long period monopolised the trade from this area. Increased railway communications and the emigration of large buyers to the larger town of Nāgpur, the headquarters of the Administration, have gradually taken away from Kamptee a great deal of commercial business which was formerly transacted there. To this transfer of trade are to be attributed the stationary or declining figures of population during the last thirty years and the construction of the Sātpurā railway has already considerably affected the imports. The new Rāmtek extension will still further affect trade and the erection of a large distillery and several cotton-ginning and pressing factories just outside cantonment limits has also had a detrimental effect on the revenues of the cantonment.

Trade and manufactures.

At the same time there is no doubt about the interior prosperity of Kamptee. The income from local sources, excluding octroi has increased from Rs. 22,297 in 1899-1900 to Rs. 46,822 in 1905-06. Trenched land readily commands an average rental of Rs. 50. per acre and has been worked by the cantonment authority with a profit of over three times that amount. Land a few yards away pays

a revenue to Government of one or two rupees an acre. There are several markets, each of which contributes something to the general fund. The Friday market which still attracts many people from the surrounding villages and from Nāgpur, the daily vegetable and fruit markets, the cotton, cattle and timber markets, all flourish. The hide market is perhaps the most important of all. Although the cantonment authority charge the very small fee of one pie in the rupee on all sales they have farmed out the collection for 1907-08 for Rs. 2400. At the lowest computation the value of the hides passing annually through the hide market is not less than five lakhs of rupees. In other directions, too, Kamptee still shows signs of life. It has become the headquarters of the manganese ore industry in Nāgpur District. The Central Provinces Prospecting Syndicate, the pioneers in this particular form of mining, and the Central India Mining Company, to say nothing of numerous smaller companies and firms, have their offices in the cantonment. Kamptee has also become the headquarters of the Kanhān Irrigation Division. The East India Distilleries and Sugar factories limited have erected a commodious and up-to-date distillery at the east end of the Kanhān bridge and the Public Works Department have made a new sub-division to work the brickfields at the junction of the Kanhān and Koilār rivers where perhaps the best bricks in the Provinces are turned out. The distribution of bungalows shows more than anything else what a change has come over Kamptee. In 1890 there were 115 bungalows all occupied by military officers except about ten of the smaller ones. Seventeen have since been demolished and in 1907 no less than 59 were either vacant or occupied by persons other than officers of the garrison. There are three cotton ginning and two pressing factories with a total capital of about three lakhs. They are situated on the south side of the cantonment and just beyond the boundary line Two were opened in 1891 and 1892 and the rest since 1900

There are two large dairy-farms, one worked by the British Infantry Regiment, the other by private enterprise. The latter exports a large quantity of butter to Calcutta. There are four mineral and aërated water factories and three printing presses; of these, three mineral water factories and one printing press are the property of the troops and are worked almost entirely for their own use. There is a large colony of Momin weavers who produce the cheaper kinds of cloth but the industry is not a paying one and these Momins, who form by far the greater part of the Muhammadan community, live from hand to mouth.

Administration.

The cantonment is under the jurisdiction of a Cantonment Magistrate. There is also a Small Cause Court Judge, who is Sub-Treasury Officer in addition. There is an Honorary Magistrate's court in the centre of the principal bazar and the number of Honorary Magistrates has usually been three.

Schools and hospitals.

The educational institutions comprise a Government High school which was established in 1863, and became a High school in 1901: while attached to it are (*a*) a school for low-caste boys in the Jumā bazar, (*b*) the Bansī Lāl primary school, and (*c*) a boarding-house. There are also the Ellis Girls' school, founded in 1885, and named after Brigadier-General Ellis, Commanding the Nāgpur District; the Nuns' Convent school started by the Nuns of St. Joseph, which contains a boarding and day school for European children, and an orphanage for native children, and teaches up to the high and final standards; the Roman Catholic primary school for native boys and two primary schools of the United Free Church Mission. Medical relief is afforded to the civil population at the cantonment hospital. The hospital itself has accommodation for thirty in-patients. A female hospital, capable of containing fourteen beds, is situated quite close to the main building, but it has unfortunate associations and

is only used by one particular class. A dispensary in the middle of the Sadar Bazar is very popular. It has just been decided (April 1907) that all these medical arrangements are in future to be under the control of an officer of the Royal Army Medical Corps who receives an allowance of Rs. 180 per mensem from the Cantonment Fund. There are some private dispensaries in the Sadar Bazar licensed by the cantonment authority. The best managed and the most useful is undoubtedly the one called "St. Mary's Dispensary." It is under the control of the Sisters of St. Joseph's and during the year 1905-06 as many as 7150 out-door patients were treated free of charge.

Floods.

The cantonment has often been flooded by the rivers Koilār and Kanhān overflowing their banks. What is locally known as "The Great Flood" occurred on 4th September 1876 when the whole of the cantonment was inundated and the Cantonment Magistrate's office, with all its records, washed away. Many other houses were utterly ruined. The marks of the flood may still be seen on the dāk bungalow and other houses. In 1877 a very fine embankment was built extending from No. 1 bungalow to the Dhobi Bazar and thence to the Chhindwāra road, while a smaller one protected the bazar and the Convent. The lowlying parts of the Gorā Bazar are still, however, without adequate protection, and in 1906 this locality was flooded, a number of people being only rescued with great difficulty after spending several hours in trees. The river Kanhān is bridged at the east end of the cantonment by a fine stone foot-bridge which is 20 feet broad and 1322 feet long. Close to it is an iron girder railway bridge. During the rainy season a ferry plies at one or other of the numerous fords. In the hot weather the river becomes an insignificant stream with, however, some deep and dangerous pools which never appear in the same locality for two years in succession. Never does a year go by without these pools claiming

one or more victims and quicksands are by no means unknown.

Churches.

The station has three churches or chapels. The English church is a Government building and there are also a Roman Catholic chapel to which is attached a school and small club for soldiers, and a Methodist chapel located in a bungalow. The Church of England cemetery was made in 1828. An interesting sculpture in it is that of two soldiers of H. M.'s 21st Foot in the uniform of 1845, subscribed 'Alas poor Taffy'.

Kamthi (Telgaon).—An agricultural village of about 2500 inhabitants four miles west of Saoner and twenty-four miles from Nāgpur. It belongs to the Junior Bhonsla Estate. Part of the village site covers an old mud fort said to have been built by the Gaolī kings. An assessment for sanitary purposes was imposed in 1907. A weekly bazar is held on Mondays. The village has a primary school.

Kanhan River.—The Kanhān enters the District near Bāregaon, a large village of the Rāmtek tahsīl, and then takes a south-westerly course past the town of Khāpa to the cantonment of Kamptee, where it receives the Pench and Koilār and is crossed by two bridges. Pursuing its course onwards it marks the boundary of the Rāmtek tahsīl and after receiving the Nāg river near the hills of Bhiukund, finally empties itself into the Waingangā at Gondpiprī. The Kanhān is the largest tributary of the Waingangā in the District, but its course after it leaves the Sātpurās is marked by no scenery of interest. For the most part it flows through a deep channel with a sandy bed, and its banks are bare or covered with short scrub. At Nerī a few miles below Kamptee, there is a short stretch of alluvial land of extreme fertility in the river bed, but this is the only variation in its monotony of sand. The direct drainage area of the Kanhān on the south seldom extends to more than a few hundred yards, and the surplus water of the land to the south only reaches it through the channels of small tributaries, which

run on an almost parallel course, only gradually converging on the main river. Its length in the District is about 65 miles.

Kanholi.—An agricultural town of 2133 inhabitants (1901) on the Anapurnā river, twenty-three miles south-west of Nāgpur. The Teli caste predominates very largely, accounting for over three-quarters of the population. Of the mālguzārs there are two Brāhmans of the Ghārpure family with high connection in official circles. The family obtained possession of the village in the reign of Bājī Rao II, in whose household they held an office corresponding more or less to that of a Chamberlain. The village has a primary school, a post office and a cattle-pond.

At the present time the village is surrounded by fair jungle, but tradition seems to point to a luxuriance and strength of growth in old times, of which there is only too little trace now. There is a story of a Nawāb (of Mughal times), who cut a tree in the Kānholi jungles and was carting the trunk to Nāgpur but found that no expenditure of bullock-labour could get the trunk past a spot called Singhār Dīp, two miles from Kānholi. The obstruction was attributed to divine agency and the log was allowed to remain there, and a few disintegrated fragments have been preserved and are still worshipped as Mayāl Deo. There is a small shrine to *Mātobā* who is said to have confounded and blinded the Pindāris in the jungles when they came to loot Kānholi (*Cf.* Nandā Gaimukh).

Katol Tahsil.—The Kātol tahsīl is the western tahsil of the District and is situated between 21°2′ and 21°31′ N. and 78°15′ and 78°59′ E. It is in shape an irregular quadrilateral, with one side to the north bounded by the Chhindwāra District, another facing north-west, bounded by the Amraoti District of Berār, another facing south-west, bounded by the Arvī tahsīl of the Wardhā District, and the fourth side facing roughly east and bordering on the Nāgpur and Rāmtek tahsīls.

Descriptive.

Except on this last side the tahsīl has well-marked natural boundaries. On the north it extends up to the fringe of the Sātpurā hills, and on the north-west it is marked off by the Wardhā river and the Kār river. The tahsīl has three principal hill systems. The first is the Sātpurā range on the north; the second a belt of uplands running from the extreme western corner (the trijunction of Nāgpur, Wardhā and Amraoti) past Kondhāli to the south-east boundary of the District; and the third, a broad band of confused hilly country covering almost the whole of the eastern half of the tahsīl between Kondhāli and Kelod, and forming the watershed between the Waingangā and the Wardhā valleys. These three hill systems enclose a rich plain, part of the Wardhā valley, which forms the north-western portion of the tahsīl. The Jām valley is an extension of this plain in the corner formed by the second and third ranges and is broad and fertile at Parādsingā, but narrows to little more than a gorge at Kondhāli.

'The Kātol tahsīl has a total area of 800 square miles, of 'which 56 are comprised in Government forest. It is 'remarkable for the abrupt contrasts of stony upland and 'fertile plain which it presents. It is said of the Kātol 'tahsīl, as doubtless may have been said of stony regions in 'various parts of the world, that the Creator of the Universe, 'having completed the construction of the world, had a 'residue of rough materials, stones and rubbish, which he 'threw down on to the nearest tract of country to his hand 'at the time, and that this happened to be the Kātol country. 'But these celestial rubbish heaps have proved a blessing to 'the country in which they have fallen. They have served 'to enclose and protect from erosion the deep lowland which 'they encircle, and the low country between them, embanked, 'as it were, by Nature's hand, seems to increase rather 'than diminish in fertility. The prosperity, industry, and 'commercial activity generally prevailing in this tahsīl, are 'the material evidences which shew that in this region of

'the District, Nature, despite a rugged exterior, has been 'not niggardly of her bounties.'[1]

Population.

The population of the Kātol tahsil was 162,588 in 1901, or 21½ per cent. of the District total. The rural population is 132,273 against 118,334 in Nāgpur, and the density of the rural population is 170 per square mile as against 139 in Nāgpur, 125 in Rāmtek, and 116 in Umrer. The population in 1881 was 147,335, and rose in 1891 to 157,100, an increase of 6·6 per cent. The increase during the next decade was 3.5 per cent. Kātol is the only tahsil which has shown a steady increase during the last two decades, a fact due to the superiority of its agriculture, and the protection against failure of crops afforded by the natural embankments of hills already alluded to. It was not severely affected in the famines. The towns of the tahsīl are Kātol (7313), Narkher (7726), Kelod (5141), Mohpā (5336) and Mowār (4799). In addition there are eight large villages containing over 2000 persons and fourteen of 1000 to 2000. Kātol tahsīl includes 494 villages of which 134 are uninhabited.

Agriculture.

Kātol has, on the whole, the poorest soils of the four tahsīls as regards composition, although it has all the *kāli* soils of the first class in the District. The percentages of the various soils are 2 for *kāli*, 55.9 for *morand*, 28.5 for *khardī* and 13.2 for *bardī*. Nevertheless, from an agricultural point of view Kātol is the most advanced of the four tahsīls, and its lands produce *kharīf* crops as valuable as the wheat of the other tahsīls. The cultivators are intelligent and enterprising to an unusual degree and spend much time and money on improvements to their fields. Of the 17,000 acres of irrigated garden land at settlement, 8000 acres were in Kātol. Of the total area of 476,000 acres at settlement, 358,000 were occupied and 332,000 were in cultivation. The actual area cropped has risen since the thirty years' settlement from 265,000 acres to 337,000 acres in

[1] Nāgpur Settlement Report para. 20.

1906-07, an increase of 29 per cent. which is the largest in any tahsil. Of the total area 75 per cent. is occupied, 8·7 is scrub jungle, 4·2 tree-forest, and 11·8 unculturable. The following table shows the statistics of cropping since settlement.

Year.	Total cropped area.	Total area under						
		Wheat.	Rice.	Linseed.	Til.	Juār.	Cotton.	Tūr.
1896-97	311,638	59,496	2,078	17,659	9,441	131,513	84,280	53,282
1897-98	302,309	30,061	3,359	6,774	13,477	153,490	69,864	52,117
1898-99	313,444	30,474	2,979	9,620	4,992	140,492	77,866	53,076
1899-00	295,967	13,005	537	2,511	3,611	145,859	94,019	40,656
1900-01	332,686	16,518	1,261	2,893	7,372	150,189	109,200	55,001
1901-02	333,367	21,703	812	5,205	6,945	149,485	106,972	53,612
1902-03	335,309	8,303	1,362	1,592	5,255	136,851	117,577	65,719
1903-04	335,744	16,279	972	2,511	12,746	132,643	133,454	58,675
1904-05	338,338	9,949	925	1,231	5,926	144,613	140,681	61,847
1905-06	340,274	10,871	416	1,190	5,222	136,240	147,971	56,098
1906-07	336,686	20,913	739	3,857	4,188	148,879	118,436	65,129

The area under spring crops has fallen markedly, and the gain having been entirely to cotton and its mixtures, the tahsīl is now almost exclusively dependent on autumn crops.

Land Revenue.

The land revenue at the old settlement was Rs. 2·36 lakhs, but was raised at the last settlement to Rs. 2·70 lakhs, which represented 62 per cent. of the total mālguzāri assets. The land revenue per acre works out at R. 0-13-0. The Narkher group has the highest rate in the District with R. 1-4-11, and the Kondhāli group the lowest of R. 0-7-7. For the purposes of assessment the tahsīl was divided into the following groups :—

1. Saoner group.—The most fertile portion, in the north-east of the tahsil, with 92 villages.

2. Kohli-Mohli group.—A jungly tract along the eastern boundary of the tahsīl, with 43 villages.

3. Kondhāli group.—Containing the southern hilly portion of the tahsīl, with 60 villages.

4. Sāwargaon group.—The northern portion of the Kātol pargana extending to the northern border of the tahsīl, with 72 villages.

5. Narkher.—The most fertile portion of the Wardhā valley, in the north-west corner of the tahsil, with 64 villages.

7. Thāri-Paunī group.—Lying to the south of the Narkher group, and enclosed by the Jām, Wardhā and Kār rivers, with 73 villages.

8. Kātol group.—The central portion of the tahsīl with 91 villages.

Miscellaneous.

For ordinary revenue work the tahsīl is divided into three Revenue Inspectors' circles, with headquarters at Piplā, Jalālkherā and Kondhāli, and into 66 patwāris' circles. The tahsīl has hitherto been very badly off for communications, but a railway is now being constructed which will open it up.

Katol Town.—The headquarters town of Kātol tahsīl, situated in 21°17′ N. and 78°36′ E., 36 miles to the west of Nāgpur with which it is connected by a fair road, partly bridged which passes also through the town of Kalmeshwar. Beyond Kātol this road becomes a mere surface track running into the Amraoti District. The town now includes the large adjoining village of Peth Budhwār, which lies on the Jām, a tributary of the Wardhā river. The population of both was 7040 in 1891 and 7313 in 1901, but as the town is the trade centre of a wide cotton-growing tract it has grown considerably since last census. The old town-site is crowded and insanitary, lying in a hollow and traversed only by narrow crooked lanes. But the recent trend of extension has been towards the higher ground on the south-east where the cotton factories stand.

General Description.

Kātol is believed to be mentioned in the Ashwamedh canto of the Mahābhārat as Kuntalapur, so named from Kuntal, a Rājā whose capital was situated here. It possesses two of the Hemādpanthī temples which are said to date from the days of Rāwan and to have been built in one night by his demons. The mud fort dates from the time of the Gond dynasty, and in the time of Dharmājī Bhonsla it was held by a Pindāri confederacy which paid more or less regular tribute to the Rājā and protected the country side from other raiding bands.

Antiquities.

Kātol is an ancient town but it reached the first stage of modern municipal development only in 1905 when it was notified as a Town-Fund area. For the first year its income was only Rs. 4761, but it has now risen to about Rs. 7176. Its prosperity depends chiefly on cotton-trading, and during the past two years most of the municipal income has for that reason been expended on a cotton-market, now practically complete. This is a large enclosure of about ten acres,

Municipal Undertakings.

securely fenced, and provided with a weighing-shed, well, water-trough, young shade-trees, and an arc-light. Within the enclosure, round the central market square, several substantial shops are being erected by merchants.

Trade.

The weekly market of Kātol has long been important and is now attended by from 6000 to 8000 people. Commodities of all kinds are dealt in but the bazar is more especially important as being the second largest cattle-market in the tahsīl. In the month of Chaitra (April) the Saraswati fair is held and is usually attended by about 10,000 people. In former days the gardens of the town were noted for their growth of fine *gānja*, and they still produce excellent oranges and mangoes.

But cotton is the staple of Kātol trade. In the year 1905-06 26,723 carts of raw uncleaned cotton were sold in the market, and that number is liable to be exceeded in years of heavy harvest, for the town draws produce from the rich valleys of the Jām and Wardhā rivers and from many villages of the Amraoti and Wardhā Districts. There are now four ginning factories at work, and three of these have presses also. They are fitted with 216 gins, which in 1905-06 turned out 32,000 bales (or 512,000 maunds) of cleaned cotton. It is to be hoped that light railway communication with Nāgpur city will soon be obtained.

Public Institutions.

The educational institutions comprise an English middle school with 250 pupils, two branch schools and a girls' school. The buildings are now too small for the town's requirements and a large new school is shortly to be built on the plateau to the south-east across which the main road is to be diverted. Here too a new post and telegraph office is to be built and a new tahsīl court. A portion of the open ground has been utilised for a Town Hall, now nearing completion, the funds for which were raised by subscription, and on another portion a small Club House is being erected. Close to

these sites stands the present tahsīli, which is to be converted into a police Station-house, and the dispensary, which has a male and a female ward with 6 beds attached to it.

Kelod Town.—An agricultural town in the Kātol tahsil, situated in 21°27′ N. and 78°53′ E. on the verge of the Sātpurā hills, twenty-eight miles from Nāgpur along the Chhindwāra road. It lies on the northern edge of a fertile black cotton soil plain of which Saoner is the centre, and shares to some extent the prosperity of its greater neighbour. Its population was 5141 in 1901. The town is mainly agricultural, but has a small industry in the simpler kinds of brass ware. It has a weekly Thursday bazar, at which large quantities of timber and firewood are sold. Kelod is under the provisions of the Village Sanitation Act, the revenue being derived from a house-tax, market-dues and brokers' fees. In 1906-07 the income was Rs. 1785, and will probably increase. The town has a vernacular middle school with 153 pupils, a police outpost, and a post office. The name is probably derived from the *kelā* or plantain tree.

Khairgaon.—A rich well-wooded village with over 400 acres of gardens and about 160 wells, lying on the east bank of the Wardhā river, two miles south of Mowār, and fifteen miles north-west of Kātol. The tenant body, which consists principally of Mālis, is numerous, and the average holding is less than three acres. The village is owned by the Deshpānde (Brāhman) family of Amner, at one time wealthy and influential but now financially embarrassed. The population was 2306 in 1901. A small assessment for sanitation has been imposed from 1907. The village has a primary school.

Khapa Town.—A town in the Rāmtek tahsīl, situated in 21°25′ N. and 79°2′ E. on the Kanhān river, 22 miles north of Nāgpur and 6 miles from Pātansaongī on the Chhindwāra road. A metalled road leads from Pātansaongi to Khāpa.

The population in 1901 was 7615 as against 9383 in 1891 and 8465 in 1881. The town is built on a site high above the river and immediately overlooking it, while on the land side it is completely shut in by fine groves of mango-trees. Thirty years ago Khāpa was described as one of the most flourishing towns in the Nāgpur District and the decrease in its population is to be attributed to changes in the course of trade. Its principal industry is cotton-weaving, which was then flourishing but is now declining in prosperity owing to the competition of the mills. Khāpa is not favourably situated for the location of pressing and ginning factories and is therefore being supplanted by its younger rivals in the centre of the cotton area. Cotton cloths in various colours for women are principally woven, while from an agricultural point of view the town is a very poor one. Khāpa was constituted a municipality in 1867 and the average municipal receipts for the decade ending 1901 were Rs. 6500. In 1905-06 the receipts were Rs. 8000 and the expenditure Rs. 10,000. The town has weekly timber and cattle-markets. It possesses a vernacular middle school with nearly 200 pupils, primary schools for boys and girls, and a dispensary, post office and police outpost. The present head proprietor of Khāpa is a Brāhman. It formerly belonged to a family of Kalārs who were heavily involved and resorted to any possible device for raising money, while the tenants followed their example and the place generally has a bad reputation for fraudulent practices.

Koilar River.—The Koilār rises in the north-east corner of the Kātol tahsīl, and after passing through the rocky country of Lohgarh in the Pilkāpār range emerges into the fertile plain of Saoner, and separates the Nāgpur from the Rāmtek tahsīl until its place as a boundary river is taken by the Kanhān. The Koilār has a more rocky bed than the Kanhān ; at Pātansaongī it receives the Chandrabhāga, which brings to it the drainage of the Kalmeshwar plain. It is bridged at Dahegaon, where it is crossed by the road from

Nāgpur to Chhindwāra. The *doab* of Pārseonī between the Pench and the Kanhān, and the *doab* of Pātansaongi on the narrow strip of land enclosed between the Koilār and the Kanhān are the most fertile and highly cultivated portions of the Rāmtek tahsil. The length of the river is about 45 miles.

Kondhali.—A large agricultural village of the Kātol tahsīl, lying eleven miles south by west of Kātol. It is connected with Nāgpur from which it is thirty-four miles distant, by the old Nāgpur-Amraoti main road running through Bazārgaon. The population was 3784 in 1901. Kondhāli was at one time a depôt for the important trade between Nāgpur and Amraoti, but after the railway was built it lost much of its importance, though its Wednesday market is still one of the most frequented in the tahsīl. It also lies in a more or less detached cotton-growing area, and has a brisk business in the transport of cotton, which is largely carried on by Telis. Most of the Government forest reserves of the tahsīl lie around Kondhāli. The village has a ginning factory belonging to the Chitnavīs firm of Nāgpur, a primary school, and a post office.

Kuhi.—A large village in the Umrer tahsīl, lying near the Nāg river 12 miles north of Umrer town and 22 miles from Nāgpur. The population was 3057 in 1901 as against 3381 in 1891. Kuhī is noted for its mango-groves and guavas and has one of the largest tanks in the District. The ruined shrine and temple of Rūkhar Mahārāj are held in great veneration. This saint is credited with miraculous powers and it is said that on one occasion he fed 500 beggars with two loaves of bread, which remained intact after all had been served. On another occasion the giver of a marriage-feast found himself without provision for his guests, but the saint supplied a small measure of rice, which when cooked sufficed to feed a hundred people. Not less curious are the legends connected with the tombs of two Muhammadans, whose aid is invoked by the Hindus for the cure of their cattle.

The village has a weekly cattle-market and is visited by traders from Kamptee every year to make purchases of grain. It is the headquarters of some old established money and grain lending firms. Kuhī will be a station on the Nāgpur-Brahmapurī railway and its importance may thus be expected to increase. It has a primary school, a post office and a police outpost, which will shortly be converted into a Station-house. A cess is raised for sanitary purposes, which now stands at about Rs. 250 but will be increased. As is often found in the older village-sites of the District the water of the wells is somewhat brackish and it will be necessary to lay out a spacious market-place between the village and the railway station and to provide new wells. The proprietors are an old Kunbi family, the members of which are now in somewhat reduced circumstances.

Makardhokra.—A large village in the Umrer tahsīl, about 8 miles west of Umrer and 16 miles from Borī station. It is on the Borī-Umrer road and is excellently situated on fertile level land near the Amb river. The population has declined from 2598 in 1891 to 2364 in 1901. A number of Koshtī weavers reside here and there is also a considerable colony of Bhāmtas, who weave coarse canvas matting. They also grow hemp and the cultivators sublet their fields to them for a year for this purpose, as the crop renders the land more productive. The village contains a school and post office and is part of the Bhonsla Rājā's estate.

Mandhal.—A large village in Umrer tahsīl, 11 miles from Umrer towards Veltur situated on the Amb river. The population fell from 2345 in 1891 to 2048 in 1901. The village contains a fine tank and on the bank is a small shrine erected to the memory of one Māroti Mahārāj, a Brāhman devotee about whom there are several legends, one being to the effect that he had a small tail. It is also said that he addressed all women as 'Mother' and would suck from their breasts. There was formerly a cloth-weaving industry, but most of the Koshtīs have now emigrated. The village

has a school and post office and a small cess is raised for sanitation. The village is held free of revenue, forming part of the Bhonsla estate.

Mansar.—A village on the Great Northern Road, 15 miles north of Kamptee and 5 miles from Rāmtek. The road to Rāmtek takes off here from the Great Northern Road. It has a fine tank from which rice and betel-vine are irrigated, and after which the village is called 'Manisar' or the 'Jewel Tank'. Mansar is one of the eight sacred places surrounding Rāmtek, and pilgrims to the great shrine come here to bathe in the tank. The village is overhung by low hills, the southern slopes of which are strewn with brickbats, while here and there the foundations of brick walls crop up through the surface. Parts of the old walls have been excavated and the bricks taken for building houses in the village. At the eastern end of the hills on level ground near the corner of the tank is a great mound, the lower part of which appears to be composed of solid brickwork. It has all the appearance of the stump of a Buddhist *stūpa*. About the base of the mound bricks have been dug out which appear to have belonged to the broad walls of massive buildings. The bricks measured $17\frac{1}{2}''$ by $9\frac{1}{2}''$ by $3''$ and are cemented with mud. The area covered with the brick foundations is too small for a town or civil settlement, but large enough for a religious colony, and the place may have once been a Buddhist monastery. No images or stone-carvings are to be found except one broken figure, which the people believe to be that of the female demon Hidimbā. She is a mythological personage in the Mahābhārata, who saved the Pāndava brothers from being devoured in their sleep by her brother, the giant Hidimba. She had fallen in love with Bhima and he married her as a reward for her action. Many of the adventures of the Pāndavas as related in the great Hindu epic have been assigned by rural tradition to different places in the Nāgpur country, but such stories cannot be considered

to have any historical basis. About the tank it is related that formerly any traveller who halted for the night on its banks would find brass cooking-vessels floating on the water for his use. The only condition was that he must return them to the tank in the morning. But one covetous traveller kept the vessels and did not return them and since then they have ceased to appear. A temple of Krishna, the deity of the Mānbhaos, stands by the tank, and a local gathering of the Mānbhaos is held at Mansar in the month of Chaitra (April).

Manganese ore deposits occur in the hills near the village and are being worked by the Central India Mining Company. They are described in the section on Minerals. Beautiful orange and deep-orange spessartite crystals are found in the pit known as the Kamptee Lady. The betel-vine grown at Mansar is of a somewhat bitter variety and was much liked by the Bhonsla Rānī, Bakā Bai, who with her household consumed large quantities of it. Since the removal of the Court the leaf has become less fashionable and now commands a much lower price than that of Rāmtek. The village has a traveller's bungalow and is owned by a Marāthā Brāhman lady.

Maunda.—A large village in the Rāmtek tahsil, 21 miles from Nāgpur on the Great Eastern Road, and situated on the Kanhān river. It has a population of about 3000 persons. Maundā is surrounded by five mango groves and has an old *satī* pillar, on the face of which is a rudely carved female figure. There is a weaving industry here, and a quantity of rice from Bhandāra is brought for sale to the weekly market. The village has a police Station-house, a school and an inspection bungalow, and it belongs to Naoloji Rao Gūjar.

Mohpa Town.—An important agricultural town of the Kātol tahsil, situated in 21°19′ N. and 78°50′ E. on a tributary of the Chandrabhāga river, eight miles north-west of Kalmeshwar and twenty-one miles from Nāgpur. The tributary runs through the middle of the town and seems to have been

subject to severe floods at long intervals. The worst on record occurred in June 1906, when over three hundred houses were washed away. The inhabitants, however, argue that the flood will not come again for many years, and have rebuilt their houses on the old sites. The population was 5638 in 1891 and 5336 in 1901. The mālguzārs are Kunbī Deshmukhs, and are a strong and quarrelsome set of men, who fight amongst themselves, and combine against the Muhammadan community. The trouble of religious demonstrations and processions threatens to become chronic in Mohpā. The provocation given by the Deshmukhs is at times peculiarly irritating, but is always within the letter of the law. The town has always been notorious for its dirty condition, and in 1905 it was put under the provisions of the Village Sanitation Act, and a local committee appointed to ensure its cleanliness. But the notables appear to have found their old system of village politics more exciting, for the committee has met very rarely, collections are in arrears, and the town is as dirty as ever. The people are prosperous and the demand for land in Mohpā is extraordinarily keen. The weekly market is one of the most important in the tahsīl; in particular the cattle-dealing business is the largest in the District, yielding Rs. 1000 a year to the committee. Garden produce also is largely dealt in, and there is a small trade in cotton. One ginning factory has been established. Mohpā has a vernacular middle school with 173 pupils and a post office. The United Free Church of Scotland has a mission in the town, dating from the famine of 1900.

Mowar Town.—A small but flourishing municipal town of the Kātol tahsīl, situated in 21° 28′ N. and 78° 27′ E. on the Wardhā river, in the north-west corner of the District, 50 miles from Nāgpur. The population was 4581 in 1891, and rose to 4799 in 1901, and is still increasing. The surrounding tract of country is one of the richest in the District.

Situation and population.

20

History.

Mowār appears to have had some kind of corporate existence since remote times, and the old Muhammadan inhabitants profess to have seen deeds granted by Aurangzeb to the people of the town. It was situated on the debatable land between the Hyderābād and Nāgpur territories, and the landowners used to divide their tributes of land revenue between the two powers in proportion to the strength of each for the time being. The present municipality was constituted in 1867, and the town has had a prosperous career ever since. A proposal has been mooted for the reduction of its status as the town is a small one to enjoy municipal privileges, but the committee has done excellent work during the last two years, their finances are flourishing, and they deserve to retain their old dignity.

Present condition.

During the decade ending 1901, the average income of the municipality was Rs. 3600, but it has now risen to nearly Rs. 6000. The principal heads of revenue are bazar dues, a latrine tax, and a house-tax. The committee has commenced a scheme of drainage by surface V-shaped drains, and has also started a system of street lighting. Up till 1906 Mowār was said to be the dirtiest town in the tahsil, but the activity of its leading citizens has resulted in so much improvement that it could now challenge comparison with any town or village in the District.

Buildings.

Mowār is best seen from the high ground on the bank of the Wardhā river, towards Khairgaon. From this point the fine old stone revetment built by the Marāthās, and the clean white-washed buildings arranged round the open market place, present a scene of tidiness and well-being that will not be easily equalled. To the north a large embankment has been built for protection from the river. The municipal office, the dispensary, the school and the police outpost, which all open on to the market place, are well

constructed buildings of more than usual pretensions. The town has a vernacular middle school with 123 pupils, comprising no fewer than twenty-two different castes.

Trade.

Mowār has profited considerably by the decay of the old town of Amner, which used to attract all the produce and trade of the north-western part of the tahsīl. The railways caused the final downfall of Amner, and its northern trade found its natural market in Mowār. The weekly Wednesday market is a famous one in these parts, and is attended by about 7000 people in the open season.

Nagardhan.—A large village four miles south of Rāmtek, with a population of 2500 persons in 1901 as against 3100 in 1891. The name is a corruption of the older one of Nandivardhan, which is mentioned conjointly with Nāgpur in a copper plate found in Deolī in Wardhā District and dated in the year 940 A.D. Nagardhan was thus an old town and was formerly of considerable importance as it gave its name to the District. The local tradition is that it was founded by a Sūryavansī king Nand, but Mr. Hīra Lāl supposes it to have been established by a king named Nandivardhan belonging to the Shail dynasty, which is mentioned in the Ragholi plate discovered by Mr. C. E. Low in Bālāghāt. The village has a temple of Koteshwar Mahādeo built in the Hemādpanthi style without mortar. The *linga* in the temple is broken by a crack about three feet deep. The people say that once there was a Gaolī woman who worshipped Mahādeo very ardently and always before she went out to sell milk she offered some to the god. In return he caused her milk to increase and she made much money by its sale. Her husband, not understanding how she got the money, suspected her of bad conduct, and seeing her visits to the temple, he concluded that she met her lover there. One day accordingly he followed her with a spear, intending to surprise and slay the couple. The woman seeing him approaching in wrath prayed to Mahādeo to shelter her, and accordingly the *linga* opened and she

crept inside. It has never quite closed again, and since then the crack has remained. The enraged husband struck the *linga* with his spear and made a hole which is still visible.

Near the temple is a tank, known locally as Shankh (conch-shell) Tīrtha or Sukla (white), which Mr. Hīra Lāl suggests may be the Hans (Swan) Tīrtha mentioned in the inscription of the temple of Lakshman at Rāmtek. The inscription states that bathing in the Hans-Tīrtha makes one clean of sin like the whiteness of a swan. Thus, the epithet of white may have come to be attributed to the tank, and the name Hans may have been changed to Shankh. There is a fort said to have been built by the Bhonslas with brick walls resembling those of Chānda town, and at some distance is a large field known as the *Junā Killā* or 'old fort'. This was probably the site of the fortress of the early kings. In the field large bricks are found like those at Mansar. Nagardhan is said to be the first place to which the Ponwār Rājputs came after leaving Dhārā, their original home in Mālwā, and a number of Jāngra Lodhīs reside here, who may formerly have been soldiers. The village has a primary school and a post office and the proprietor is a Tilokchandī Bais Rājput.

Nagpur Tahsil.—The Nāgpur tahsīl forms the central and south-western portion of the District, lying between 20°46′ and 21°23′ N. and 78°44′ and 79°19′ E. It is bounded on the north by the river Koilār as far as its junction with the Kanhān above Kamptee, and thence by the Kanhān itself, separating it from Rāmtek. South and east lies Umrer, the Wunnā river marking the border for about 15 miles, while to the south-west the tahsil adjoins the Wardhā District, and to the west and north-west Kātol. The tahsīl may be divided into four marked geographical tracts, the Kalmeshwar plain, the Kauras plateau, the Wunnā valley, and the Nāgpur-Kamptee plain. The first of these tracts,

Descriptive.

the Kalmeshwar plain, lies in the northern portion of the tahsil. It is drained by the Koilār, and its principal tributary the Chandrabhāga. The second tract, which differs considerably in its natural features from every other part of the tahsīl, is the plateau of Kauras, a continuation of the uplands of Kātol, which round off in this tahsīl and form an extensive and fairly well cultivated tract of high land. The Wunnā valley, the third tract, comprises the central and southern portions of the tahsīl, traversed by the Great Indian Peninsula Railway. The surface is generally undulating, and is broken by a few low hills. The fourth tract comprises the whole of the Nāgpur pargana, the level plain lying to the south and east of Nāgpur, drained by the Nāg river and its tributaries. The first and fourth of these areas are the most fertile and contain the best wheat cultivation; in the third there is also wheat but to a far less extent, and there is abundance of juār and a fair amount of cotton. The second tract has very little wheat indeed and the poor lands are chiefly cultivated with juār, tūr and cotton.

Population.

The population of the tahsil was 268,479 in 1881, 294,262 in 1891, and 296,117 in 1901, showing increments during the two census periods of 9·6 and 0·63 per cent. The density per square mile is 340, but excluding the large towns the rural density is only 139. The towns of the tahsīl are Nāgpur (127,734), Kamptee (38,888), Saoner (5821) and Kalmeshwar (5340). The tahsīl also has five large villages with a population of over 2000 and nine with a population of between 1000 and 2000. Excluding Nāgpur and Kamptee and their dependencies the tahsīl is comprised of 559 revenue mahāls, of which 417 are inhabited villages and 142 uninhabited.

Agriculture.

The soils of the Nāgpur tahsil are distinctly above the District average. They are comprised of 2·2 per cent. *kāli*, 70·4 *morand*, 22·5 *khardī*, 4·5 *bardī* and *retāri*, and 0·1 per cent. *kachhār*. Of its total area of 508,000 acres, 401,000 were

occupied at settlement, and of these, 331,000 were under cultivation. The occupied area had increased 9 per cent. since the previous settlement. The following table shows the changes in cropping since 1896:—

Year.	Total cropped area.	Total area under					
		Wheat.	Linseed.	Til.	Juār.	Cotton.	Tūr.
1896-97	381,437	63,322	36,139	13,503	86,691	49,989	14,527
1897-98	304,123	57,896	28,992	14,163	115,324	42,943	18,769
1898-99	286,791	60,167	45,469	5,424	88,511	45,782	16,145
1899-1900	287,871	30,419	24,837	17,423	113,081	52,448	17,336
1900-01	331,038	34,460	17,402	20,679	117,532	84,924	17,362
1901-02	325,015	56,342	31,390	8,610	124,528	50,211	16,505
1902-03	345,968	32,544	17,634	8,596	131,147	103,270	19,013
1903-04	344,806	47,162	26,390	8,500	108,410	119,895	14,561
1904-05	352,732	41,840	17,814	5,556	121,097	130,855	17,014
1905-06	359,396	39,676	17,066	3,134	115,260	147,704	14,360
1906-07	360,071	52,160	26,820	3,143	85,621	92,410	16,361

As generally throughout the District the area under *rabī* crops has fallen in this tahsīl from over one-third of the total to just over one-fifth, the gain being almost all to cotton.

Land revenue.

The land revenue assessed at the thirty years' settlement was Rs. 2.44 lakhs and it was further enhanced at last settlement to Rs. 2·84 lakhs, which represents 62 per cent. of the total mālguzāri assets. For the purposes of settlement the old parganas were broken up into the following groups:—Nāgpur with 80 villages, Tākalghāt (92), Kalmeshwar (50), Uparwāhi (40), Borī (60), Hingnā (46), Korādih (67), Bazārgaon-Kauras (46), and Kānholi (43). The assessment per acre in cultivation falls at R. 0-13-8, the highest in the four tahsīls.

Miscellaneous.

The railway stations of Nāgpur, Mehdibāg, Kamptee, Khāpri, Borī and Borkheri are situated within the tahsīl, and three new lines are under consideration from Nāgpur. Nāgpur, Saoner and Kalmeshwar are municipalities, and Kamptee is a cantonment. Police Station-houses are situated at Nāgpur Borī, Kalmeshwar, Kamptee and Saoner.

Situation and area.

Nagpur City.—(F. Dewar) This is the capital town of the Central Provinces and Berār and of the Nāgpur Division and District, lying between 21°9′ N. and 79°7′ E. It is 520 miles from Bombay and 701 miles from Calcutta at the junction of the Great Indian Peninsula and the Bengal-Nāgpur Railways. It is 225 miles from Jubbulpore by rail, 445 miles from Allahābād, and 564 miles from Cawnpore. Hyderābād, Deccan, is 318 miles distant by road. The foot hills of the Sātpurā range are 25 miles to the north and the city stands in comparatively level country on the banks of the small Nāg river from which it has taken its name. The site is low but well sloped, and to the west and north there are ridges of steep basaltic rock. The area of the city prope

and of the civil station has of late years constantly increased and it is now about 10 square miles.

Population.

The modern town first gathered about the ancient fort of the Gond Rājās. A hundred years ago it was a collection of small hamlets scattered over a fertile plain, but it has long been an overcrowded and spreading mass of habitation. In 1872 the population numbered 84,441, in 1881, 98,299, in 1891, 117,014 and in 1901, 127,734. Since last census the city has lost over 20,000 inhabitants from plague alone, but if we may judge from the spread of building and the demand for house accommodation, its present population is not less than 140,000. In 1901 there were 104,453 Hindus, 17,368 Muhammadans, 436 Pārsīs and 3794 Christians, of whom 1780 were Europeans and Eurasians. It is difficult to estimate the proportionate increase of the Hindu and Muhammadan populations, both of which have suffered severely from plague, but the Pārsī colony has greatly increased owing to the development of the cotton industry and the opening of manganese mines, and the addition of the Berār Districts to the Central Provinces has added to the European and Eurasian communities.

History.

The present city of Nāgpur was founded at the beginning of the 18th century by the Gond Rājā Bakht Buland. It subsequently became the capital of the Bhonslas, was sacked and burnt in 1765 and again partially burnt in 1811 by the Pindāris, but it grew with the growth of the Bhonsla kingdom and was considerably improved by the Rājās of that dynasty. In 1817 it witnessed the battles of Sītābaldī and Nāgpur, which secured British influence in these territories, and in 1853 it lapsed with the kingdom to the British Rāj to become in 1861 the capital of the Central Provinces. At the time of the Mutiny there was but little disturbance in the city. A riot occurred in 1896 at the commencement of the famine, and there was another in 1899 when plague preventive measures

were first enforced, but both were easily suppressed. Since its assumption as British territory the history of the town has been one of peaceful growth, quickened by the advent of the Great Indian Peninsula Railway in 1867, retarded at times by famine, and in more recent years so greatly stimulated by the development of the cotton industry that five severe epidemics of plague have not stopped the advance.

Description.

Nāgpur is divided naturally into two parts, the city proper lying east and south of Sītābaldi fort and the railway station, and the civil station lying to the west and north of these.

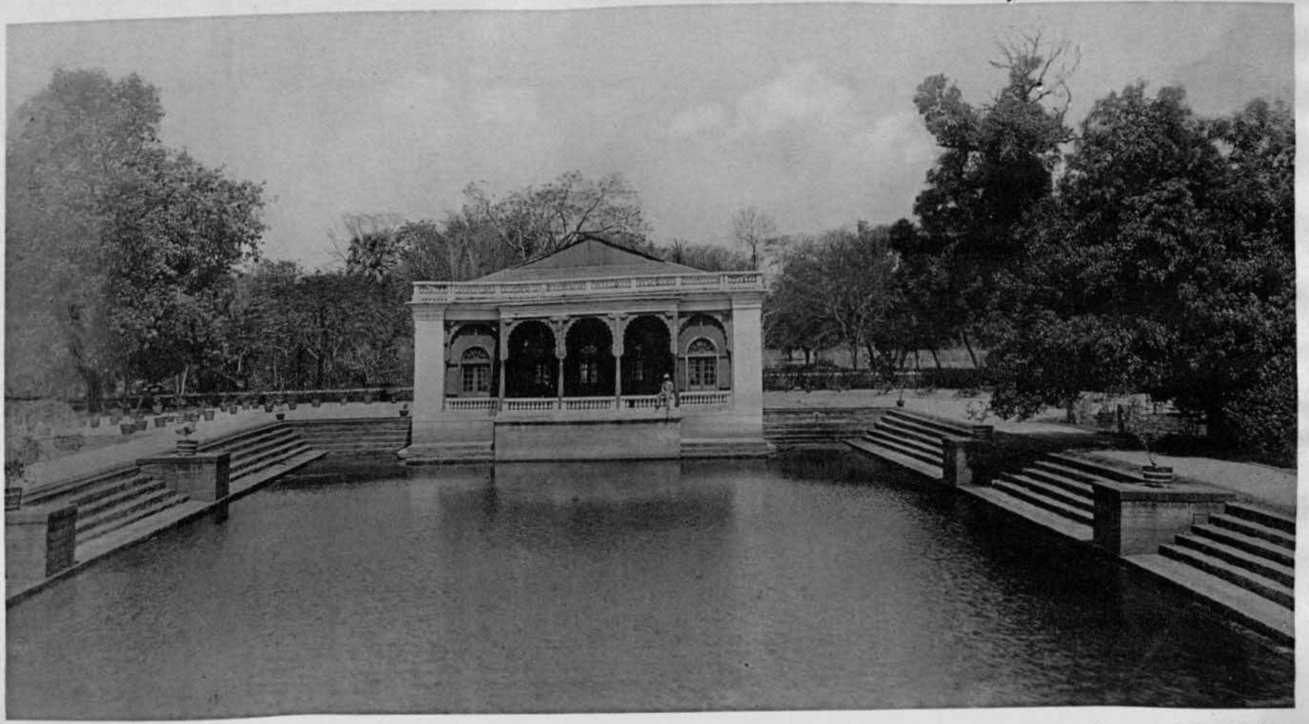
The City.

The traveller entering the city from the present cramped railway station, soon to be rebuilt on a much larger scale, passes first along the bank of the Jumā Talao, a large rectangular lake built by the Bhonslas and improved in later years. The northern bank is occupied by the buildings of the Empress Mills, and on the southern bank behind the Nedham Park stand the Swadeshi Mills. Beyond this lake the old main street runs below the Jumā Darwāza, a remnant of the city wall, and leads directly to the centre of the city. Here stood the old Bhonsla palace, which was burnt down in 1864. Part of its site is occupied by a small modern palace building, and part by the Town Hall. Opposite this is the new police Station-house, and close by is the daily market, for which new buildings are being planned. Beyond the Town Hall stands the old fort and palace of the Gond Rājās now partly demolished. To the south lies the Sakardarā garden, the present residence of the Bhonsla Rājā of Deor. There are here no buildings of any importance, but an interesting menagerie is maintained and there is a fine natural amphitheatre where the townspeople assemble to witness wrestling and other sports. The main business street of the city is now the Hansāpuri road which runs from west to east through its northern wards. On this stands the tahsīl office, and at the eastern end, where the Bhandāra road runs out is the site

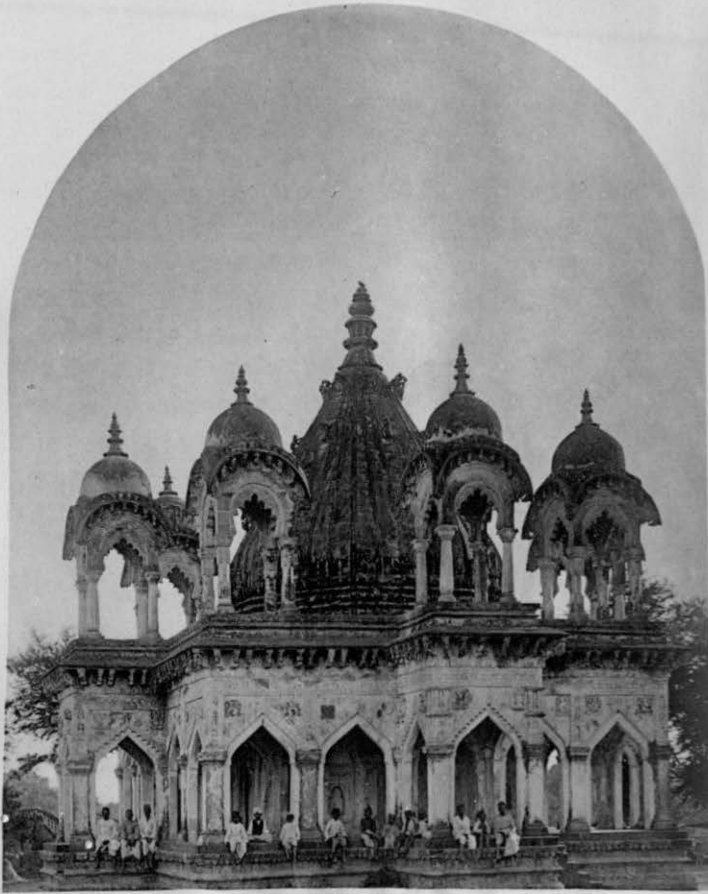
of the Itwāri bazar, or weekly Sunday market. This like most of the present sites and buildings, is now too small for the needs of the city. Fifty years ago Nāgpur could be described only as a mere huddle of habitations. It had no metalled roads or wide streets but only narrow lanes and paths of beaten clay which became bogs of mud in the autumn, and it contained many unsightly and insanitary ponds and waste spaces. There are still great areas of huddled huts and narrow lanes and some stagnant ponds and gravel pits, but wide new streets are being pushed further each year into the crowded areas and the waste land is being steadily reclaimed. Through the northern wards the line of the new Umrer-Chānda railway is being cut, which will connect the present railway station with another placed beside the Itwāri bazar, and a contract has been given for the construction of electric tramways along the main streets. The water-supply from Ambājheri lake, first brought to the city in 1873 and since then from time to time enlarged, is now quite inadequate. A large new reservoir is to be built in the high land to the north-west. The city has very fair natural drainage into the Nāg river. Small local improvements are annually being made and a second comprehensive drainage scheme is now being formulated. The city has no great claim to picturesque beauty but when viewed from the higher lands the slopes of Sītābaldī hill form a fine background to the waters of the Jumā lake, and the crowded lanes are so screened by the greenery of many trees that only the chimneys of the mills and factories reveal the presence of a city.

The Civil Station.

The civil station, lying west and north of the railway and of Sītābaldī hill, has a much better natural site. In Bhonsla times it was the garden suburb where the Rājās built the original Ambājheri and Telinkherī lakes and laid out their Telinkherī summer-house and the Mahārājbāg. These have been improved under British administration and in 1891 on a steep isolated hill to the north of Sītābaldī the present Government



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KASHIBAI TEMPLES, SAKARDARA, NAGPUR.

House was built. Beyond this runs a longer ridge on which stands the Roman Catholic Seminary and Retreat, a tall and ugly but solid building. Under these hills to the south lies the flat plain of the civil station, laid out on the usual Indian lines with wide roads and compounds, cricket and football fields, polo-grounds, a race-course and a golf-course. The older part is a park of trees from which only the larger buildings show, the Roman Catholic Cathedral, the English Church, the Museum, the Club House, and the new Victoria Institute. The new Secretariat Office building, not yet complete, will also be prominent, but this lies beyond the old civil station on a tract of land recently taken up by Government on which several enlarged new courts and offices have been or are being built. Beyond these to the south-west several houses are being constructed for the superior officers of Government. In this direction lies the old polo-ground, and on a fine site near the Telinkherī lake the building for the Central Provinces Club is being erected to overlook the race-course and the new polo-ground. Much of this part of the plain is still bare of trees but several hundreds have been planted by Government and by the Municipality on the roads. When these and the plantations on Government House hill and Seminary hill are grown, the appearance of the station will be excellent. To the north of the hills lies Tākli, a third portion of the station. It consists chiefly of high ground within easy reach of the railway and of the road to Kamptee. Several new bungalows have recently been built here by private individuals and houses are being constructed for the use of clerks. Plague epidemics have tended to drive the richer class of Indians out of their cramped city houses to suburban villas, and it seems probable that within a few years there will be much building extension from Tākli northwards towards Kamptee, the present garrison town, which is also an important centre of trade.

The Municipality.

The municipality of Nāgpur was first established in 1864 as a branch of the District administration. When the first Municipal Act was passed in 1873 the committee was reconstituted with a majority of members elected by the townspeople, and in 1883 the constitution was still further enfranchised. In 1884 it was found necessary to form a special sub-committee for the administration of the civil station. This arrangement has been continued, the sub-committee having now practically independent powers. The municipal income, chiefly derived then as now from an octroi tax, was in 1865 only Rs. 1,26,100 and in 1882 Rs. 1,59,100. In recent years its growth has been repeatedly checked by visitations of plague and the disorganisation of trade which these always cause, so that the present net income is not much more than four lakhs and is barely sufficient for the more pressing municipal needs. The taxation, however, is extremely light. Its net amount is only three lakhs, or about Rs. 2-4-0 per head of population. Reduced to the lowest common multiple this represents the wages of an unskilled labourer for five days.

Municipal Undertakings.

Up to 1885 the conservancy arrangements were in the hands of the Police Department, but in that year they were taken over by the Municipality. They have been steadily improved. 7825 house latrines and 60 public latrines are now in use. But further improvement on a considerable scale will be possible when a complete drainage scheme is adopted and when, on the institution of the electric tramway, residence can be more readily removed to the outskirts. In 1885 also a beginning was made in street-lighting. A total of 650 oil-lamps are now in use, but it is hoped that this department also will be improved by the electric installation. The Town Hall and its library were built in 1895. The former accommodates the municipal office, but for the octroi branch a new central office is now being built. It may here be noted that the



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JUMA TALAO, NAGPUR.

regulation and improvement of the administration of the octroi tax has especially in late years, been one of the most important municipal undertakings. In 1901 a large cotton-market was established near the railway station on land reclaimed from the waters of the Jumā Talao. Since then the committee has spent large sums on the widening of old streets and the building of new ones, and has taken up considerable areas of land in the south and north which are being let out for private house-building according to standard plans. Three steam fire engines have been purchased and equipped, and telephonic communication is being installed. But from the first the city's chief concern has been its water-supply. The Ambājheri lake, which is the present reservoir, was built by the Bhonslas more than a century ago, but not until 1873, when it was enlarged, was the water of the lake brought to the city in pipes, at a cost of four lakhs. This ran by gravitation only and in 1890 it was necessary to spend three lakhs more on an extension and on the pumping of water to the higher levels. Still later, at the cost of another lakh, the catchment area was fenced and a new main pipe laid. During the famine of 1899-1900 the tank was deepened at the cost of Government and the dam was raised at the charge of the municipality. In 1904-05 a new pumping engine was installed and a second main pipe laid. The catchment area of the reservioir is now 6½ square miles and the water-spread 412 acres, but its supply is inadequate even for the household needs of the city and civil station, and a scheme for the construction of a second reservoir has been brought forward. This, lying in a valley to the north of the Ambājheri and Telinkherī lakes, will have a catchment area of 12 square miles and a water-spread of two square miles. It will not only supply the present growing needs of the householders but will facilitate the contemplated reform of the drainage and provide a supply of water for new industrial enterprises. From the autumn of 1906 the committee has engaged

energetically in plague preventive measures which have been temporarily successful. The future rapid growth of the city appears to depend on its ability to exclude serious plague epidemics and to raise the revenues to meet large expenditure on water-works, drainage, street-widening and lighting.

Trade. Orange cultivation and handloom weaving.

For more than a century Nāgpur has been noted in India for its orange gardens and for the cotton and silk fabrics woven by its large Koshtī population of handloom weavers. Orange cultivation is still extending and in spite of the competition of machine-woven cloth, local and imported, there are still some 5000 handloom weavers at work and many spinners and dyers. Since the advent of the railway Nāgpur, rivalled only for a time by its neighbour Kamptee, has become the leading industrial and commercial town of the centre of India. It owes this position chiefly to its cotton trade.

Cotton Mills and Factories.

The Empress mills were opened in 1877. They include spinning, weaving, and dyeing factories, use 1400 looms and 75,000 spindles, and employ 4300 operatives. Their capital is 47 lakhs and their outturn of yarn and cloth in 1904 was valued at 61 lakhs. The further extension of this great enterprise is conditioned by the water-supply of the city. In late years the supply of labour has been short but a scheme is in hand for the provision of model dwellings for the operatives and these are being attracted from other parts of India. The Swadeshī mills, situated on the opposite side of the lake, were founded in 1892 with a capital of 15 lakhs. They have 180 looms and 16,500 spindles, employ 900 operatives, and produced in 1904 goods to the value of 14 lakhs. Much of the ginning and pressing of the local cotton is done by factories situated in the smaller towns of the District, but in Nāgpur itself there are 20 ginning and pressing factories containing 287 gins. They have a combined capital of about 17 lakhs.



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Manganese mining and Railways.

In still more recent years the mining of manganese in the District and in neighbouring Districts has added to the trade of Nāgpur. At present most of the ore is brought to Kamptee and exported thence, but a considerable quantity from mines to the north-west comes into Nāgpur city by road. Between Kamptee and the mines at Rāmtek a new railway is nearing completion. From Nāgpur a line has been surveyed to Saoner town. Beyond that point it is proposed that one line will run north to tap the mines and that two others will go to Itārsi and Amraoti. Meanwhile a narrow gauge line from Nāgpur through Umrer to Chānda is under construction.

Printing presses and newspapers.

There are in the city 11 printing presses from which are published one English and three Indian newspapers and a monthly compendium of the Central Provinces Law Reports.

General trade.

Apart from the special industries noted, the bulk of general trade has within ten years very greatly increased. The chief branches of the supply trade are concerned with timber and firewood, kerosine oil, imported cloth, leather goods, foodstuff, tobacco, ærated waters, and ice. The trade in wood is especially heavy. The import of building timber is large, and it is accompanied by great activity in brick-making owing to the constant demand for new house building. The installations of oil in the neighbourhood of the railway station are now numerous, and the extension of the ordinary food-supply trade necessitates the extension of the sites for the daily and the weekly markets. The consumption of alcoholic liquor has in four years all but doubled, owing chiefly to the increased number of artisans and labourers and to the custom of cartmen bringing in cotton and manganese ore. The milk-supply trade has equally increased, but has been less carefully administered. There is a large ice factory.

Public Institutions.
Offices.

Nāgpur is the headquarters of the Administration of the Central Provinces and Berār and of the Provincial departments. It is also the Divisional headquarters for a Commissioner, and a Divisional Judge. A Deputy Post-Master General, an Inspector of Schools, a Conservator of Forests, and two Executive Engineers, for Roads and Buildings and for Irrigation, the Deputy Comptroller of Post Offices for the Bombay circle, and the Archdeacon of Nāgpur also have their headquarters here. There are some twenty large court houses and offices. For almost all departments, owing to the development of the Central Provinces and the addition of the Berār Districts, it has been necessary to erect new buildings. The District Court house alone of the older buildings is important, its cost being 1·04 lakhs. Of the new ones the principal is the Secretariat building, a stately quadrangular pile faced with black basalt and grey sandstone. The new Secretariat building will cost nearly 9 lakhs. Excluding this the cost of Government buildings is about 30 lakhs, to which rented buildings, principally the bungalows of officers, contribute 4 lakhs.

Jails and Asylums.

Besides these the chief Government institution are the Central Jail, one of the two Provincail lunatic asylums, and a leper asylum. The lunatic asylum, which is now being extended, occupies a fine site and has accommodation for 150 inmates. The jail lies south of the city. It is probably the most sanitary and industrious part of Nāgpur. In it is housed the Government printing press, which has 30 presses and prints or lithographs all the forms and registers used by the Administration. The outturn is approximately ten million sheets annually. The other principal industries of the jail are carpet-weaving and upholstering in cane.

Gardens.

The Department of Agriculture maintains a large experimental farm in the close neighbourhood of the civil station and under

its management also are the Telinkherī gardens below the lake of that name and the Mahārājbāg near the city. The latter is the principal public garden of Nāgpur. It contains a small zoological collection and an aviary has recently been built. At the western end it is commanded by the new Victoria Memorial Technical Institute, an imposing building, in front of which stands a white marble statue of the late Queen Empress, recently unveiled. Close to Sītābaldī stands the Museum, which is filled chiefly with archæological remains. Attached to it are gardens under municipal management. In the city itself there are, with the exception of the Rājā's garden at Sakardarā, no recreation grounds of importance except the Nedham Park, recently laid out on ground reclaimed by famine labour in 1900 from the Jumā Talao.

Religious Institutions.

Nāgpur is the headquarters of a Roman Catholic diocese and has a Cathedral, a Convent, and a Seminary. The English church is also to be enlarged as a Cathedral. The United Free Church of Scotland maintains an important mission, and there is also a Methodist Church. In the city there are many temples, old and new, but none are of exceptional importance. Perhaps the most noteworthy Indian religious institution is that of a Muhammadan sect established at Mehdibāg. This has also educational and industrial interests and is best known to European residents by its excellent shop in the city[1].

Military and Police.

The garrison town of Kamptee lies 10 miles to the north of Nāgpur and the only regular force, in the city itself is a small detachment of infantry occupying fort Sitābaldi. There are also the headquarters of the Nāgpur Volunteer Rifles and of the Bengal-Nāgpur Railway Volunteers, which have five companies in Nāgpur. The city police number 153 men of all ranks. These at present are scattered in several posts, most of which are now to be removed. The force will then

[1] See para. 64.

be concentrated in four Station-houses, the central post being the Kotwāli, beside the Town Hall, for which a spacious building is now nearing completion.

Educational Institutions.

Nāgpur has two colleges which in their Arts and Science courses are affiliated with the University of Allahābād. They are at present attended by 168 students. The Morris Memorial College was established in 1885. It takes its name from Sir John Morris who for many years was Chief Commissioner of the Central Provinces. For its foundation a considerable sum was subscribed by the people of the Nāgpur and Chhattisgarh Divisions and it is supported also by grants from Government, from the municipality, and from the District Council of Nāgpur. The latest grant from Government is in aid of its Law Class, which is attended by 23 students. The present building of the college in the city is barely adequate, but it has a hostel attached in which several students board. The Hislop college was opened in 1884 as an affiliated college of Calcutta University, but in 1905 it was affiliated with Allahabad. It takes its name from the Rev. Stephen Hislop, the eminent geologist, who founded the Scotch mission in Nāgpur. The college is supported by subscriptions, by the funds of the United Free Church of Scotland, and by Government grants. It occupies handsome buildings near the western entrance to the city and a large hostel for the accommodation of 60 boarding students has recently been erected on the bank of the Jumā Talāo. There is also in the civil station a hostel for 30 Indian Christians. The Victoria Memorial Technical Institute, already spoken of, was opened by Sir Andrew Fraser in 1906. It provides accommodation for advanced science classes and for the Agricultural college, which is also provided with a hostel. But it is intended chiefly for the teaching of handicrafts to sons of the artisan classes. Among other special institutions there are the male and female normal schools for the training of teachers for rural schools. These are Government insti-

tutions and contain at present 80 students who receive stipends or scholarships. The number of schools is constantly increasing. Besides the High schools and their branches there are at present four English-teaching middle schools and about 50 primary schools. The three High schools which are aided by Government have 412 pupils on their rolls. These are the Neill City High school, connected with the Morris college, the High school of the United Free Church Mission connected with the Hislop college, and the Patwardhan High school. Of the middle schools the most important is the Anjuman, and this is now to be extended by converting it into a High school and adding a hostel. The trading population consists largely of people from Northern India, and to meet their needs two new schools are being established for the teaching of Hindī. Bengāli is taught in one private school. The St. Francis de Sales' college and the Bishop's school provide High school education for European boys. The former has a good industrial class. European girls are taught at the St. Joseph's convent school.

Medical Institutions.

The Mayo Hospital is the principal medical institution of Nāgpur. It occupies several blocks of buildings on open ground near the railway station, contains 84 beds, and has private wards and special accommodation for Europeans. Its operating room has recently been greatly improved. Immediately behind the Mayo buildings stand those of the Dufferin Hospital for women. This is under a fully qualified lady doctor and has accommodation for 35 indoor patients. Attached to it is a class for midwifery training. The Mure Memorial Hospital of the United Free Church Mission is also under a lady doctor. It occupies a fine site in the civil station near the Mahārājbāg, contains 30 beds, and does much dispensing work. There are two railway and two mill dispensaries and five public dispensaries, all largely attended.

Nag River.—A tributary of the Kanhān which rises in the hills to the west of Nāgpur and flows in a serpentine

course past Nāgpur City, joining the main river at Saongi in the east of the District. The river probably derives its name (Nāg, a cobra) from its sinuous course, and in turn gives a name to Nāgpur city.

Nanda-Gaimukh.—A large agricultural village of the Kātol tahsīl, nine miles west by north of Saoner, and thirty miles from Nāgpur. The population was 2389 in 1901 and is now probably over 2500. It possesses a large and progressive Mahār community, engaged partly in weaving coarse blankets (*kambals*) partly in agriculture. Nandā has a primary school and post office. An assessment for sanitary purposes was imposed in 1907. In early Pindāri times the inhabited site lay a mile or two to the south, at an open place on the Koilār river called Pāndhri, and was frequently visited by these energetic robbers. An ascetic named Sharbhang had established his hermitage in what is now the village site, but was then dense forest. His shrine was under a large pīpal tree from whose roots there flowed a stream of healing waters. At his invitation the harassed people of Pāndhri migrated and settled round his fountain, and when the Pindāris tried to follow them up they were stricken with blindness and perished miserably in the forest. The legend suggests the former extent and denseness of the jungles in these parts; other traces are little enough now. Subsequently a landowner, one Nāgya Brāhman, built a 'Gai-mukh'[1] and tank round the *Sādhu's* spring, and pilgrims now come from long distances in the month of Kārtik (October) to bathe in the pool and drink the waters.

Narkher Town.—An important agricultural town and cotton-growing centre, situated in 21° 29′ N. and 78° 32′ E. in the north-west corner of the Kātol tahsīl, 45 miles from Nāgpur and fifteen from Kātol. Its population was 8256 in 1891 and 7726 in 1901; it has increased since the census

[1] When water issues from a rock or spring the head of a cow is carved and the water made to flow through it.

and is now about 8000. The predominating caste are the Telīs, who are chiefly engaged in growing and trading in cotton. Their principal market used to be Amraoti, but now they deal more extensively with Kātol and Nāgpur. The town has a large proportion of weavers and dyers also, and twenty-five goldsmiths' shops. A number of the Nāgpur money-lending firms have established branches in Narkher which is another indication of its prosperity. The town lies about three miles to the south of the Chhindwāra hill, in flat and fertile country, and is surrounded by rich garden cultivation. Its land revenue is the largest in the District, being Rs. 6120 on an acreage of 3053, of which 80 per cent. is held in *mālikmakbūza* right. The Village Sanitation Act was extended to Narkher in 1906, and the revenue in 1906-07 was Rs. 2328. The town was once a municipality and the committee hope to regain their old dignity. It has a vernacular middle school which is the largest in the District with nearly 200 pupils, a police outpost, and a post office.

The town is said to have been founded by the Mānas, then a warlike caste, who made plundering expeditions into Berār and repelled the Pindāris at every encounter. Some ornaments and coins, largely of the Mughal period, were recently unearthed in the old fort and are supposed to have been some of their plunder. With the advent of British rule their activities were suppressed and they became a peaceful caste of cultivators. Few now remain in Narkher.

Paradsinga.—A fine village with many wells and gardens, inhabited chiefly by Mālis. It is situated in the Jām valley, six miles west of Kātol, the principal market for its garden produce, and is forty-two miles from Nāgpur. Its population was 3192 in 1891; but fell to 2985 in 1901. It has a weekly bazar, held on Wednesdays, at which large quantities of turmeric, oranges and sugarcane are sold among other garden produce. The village has a primary school and post office.

Parseoni.—A large village in the Rāmtek tahsīl about 17 miles north of Nāgpur and two miles west of the Pench

river, with a population of nearly 4000 persons. It contains 3 tanks and more than 200 acres are under betel-vine gardens. There is a trading quarter in the village and some moneylenders reside here. The village has a school and police outpost and it is intended to open a dispensary and to raise a sanitation cess. Some manganese mines are worked in the vicinity, and close to the village is the Bhiwagarh hill-fort. The proprietors are Kunbīs.

Patansaongi.—A large village in the Rāmtek tashīl, 15 miles north-west of Nāgpur on the Chhindwāra road. Its site is near the confluence of the Koilār and Chandrabhāga streams, and when these overflow is in danger of being flooded. The population was 4932 in 1901, having increased by about 50 during the preceding decade. At next census (1911), Pātansaongi, will probably have a population above 5000 persons and will rank as a town. There are the ruins of an old fort here, and it is related that in 1742 a battle took place between Wali Shā, the Gond usurper, and the legitimate queen, the widow of Chānd Sultān, in which 12,000 persons were killed. A troop of horse was stationed here up till the lapse of the Nāgpur kingdom. There is a considerable hand-weaving industry and a number of Rangāris or dyers. The village has a vernacular middle school and a police outpost and a school for low-caste boys is maintained by the Scotch Free Church Mission of Nāgpur. There is a military encamping ground. The people are said to be quarrelsome and litigious. A small cess is levied for sanitary purposes and the proprietors are Kunbīs.

Pench River.—The Pench rises in the Motur jāgīr of the Chhindwāra District and enters Nāgpur among the hills north of Bhiwagarh. Its course in this District may be divided into two portions contrasting markedly in scenic and general character. The upper part is a mountain stream winding among forest-clad hills and emptying on to the plain country at the picturesque falls of Māhuli. The lower river flows slowly through the rich but uninteresting country of the Pārseonī

and Chācher groups and ends in the junction with the Kanhān, about three miles north-west of Kamptee. Of the total length of the Pench, about one hundred miles lie in Chhindwāra and thirty-seven in Nāgpur.

Ramtek tahsil.—The Rāmtek tahsīl occupies the northern and north-eastern portions of the Nāgpur District, from the rest of which it is separated by the Kanhān and its tributary the Koilār. It lies between 21° 5′ and 21° 44′ N. and 78° 55′ and 79° 35′ E. It is bounded on the north by the Chhindwāra and Seonī Districts, on the east by the Bhandāra District, on the west by the Kātol tahsīl and the Chhindwāra District, and on the south by the Umrer tahsīl. It covers an area of 1129 square miles, of which 343 are Government forest, constituting the east and west Pench reserves. The tahsīl is naturally divided into the northern country bordering the Sātpurās, which is intersected by hills and jungles, and the southern country between the hills and the Kanhān, which is flat and open. But an almost equally important division is made of east and west, the natural boundary being the river Pench, which, flowing directly southwards from the Chhindwāra District, joins the Kanhān at Bīna of the Rāmtek tahsīl, and Wāregaon of the Nāgpur tahsīl. It thus completely cuts the Rāmtek tahsīl into two portions. To the east of the Pench, lie the Dongārtal, Rāmtek, and Thārsa parganas being the larger area, while to the west are situated the Bhiwagarh and Pātansaongī parganas. To the east of the Pench the principal crops are wheat and rice and to the west juāri and cotton. The tahsīl includes the two poorest tracts in the District, but the southern portion on both sides of the Pench is closely cultivated, and is only second to the Wardhā valley in fertility.

Descriptive.

The population of the tahsīl in 1881 was 147,351; in 1891 it rose to 157,150, but fell to 156,663 in 1901, giving a net increase over the twenty years of 6·3 per cent. The total density in 1901

Population.

was 139 per square mile, and the rural density 125. The tahsīl has two large towns, Rāmtek with a population of 8732, and Khāpa with 7615, but the latter is declining rapidly. In addition there are six large villages with population of over 2000, and eight with population of between 1000 and 2000. Of the 560 recorded revenue mauzas 441 are inhabited villages, 101 are uninhabited, and 18 are not now in existence.

Agriculture.

As regards composition of soils, Rāmtek is inferior to the Nāgpur and Umrer tahsīls, and only slightly superior to the Kātol tahsīl, but the wheat fields of the Pench valley are the best in the District. Of the total cultivated area at settlement ½ per cent. was *kāli*, 60 per cent. *morand*, 34 *khardī*, 5 *bardī* and *retāri* and 0·2 *kachhār*. The occupied area at the thirty years' settlement was 341,000 acres, but had risen at the last settlement to 377,000 acres, of which 314,000 acres or 83 per cent. were under crop. The occupied area absorbed 74 per cent. of the total area, the remainder being made up of 15 per cent. forest and grass and 11·3 unculturable. The crop statistics since settlement are given in the following table :—

Year.	Total cropped area.	Total area under						
		Wheat.	Linseed.	Til.	Rice.	Juār.	Cotton.	Tūr.
1896-97 ...	301,609	69,392	22,522	33,109	16,267	81,036	13,073	34,157
1897-98 ...	311,861	77,778	21,250	19,240	15,236	96,750	7,930	35,981
1898-99 ...	304,681	86,342	33,625	13,623	16,155	85,833	8,844	33,462
1899-1900 .	306,156	56,029	17,224	32,726	2,371	95,324	11,209	38,265
1900-01 ...	320,137	62,004	14,933	27,076	13,081	90,735	24,564	38,070
1901-02 ...	327,848	83,212	23,247	17,871	14,921	96,649	24,689	31,133
1902-03 ...	330,344	68,664	17,764	22,208	9,560	91,847	40,430	31,830
1903-04 ...	336,416	76,035	19,810	12,457	10,545	94,900	55,006	26,638
1904-05 ...	341,227	61,479	13,177	9,964	6,912	10,056	63,632	28,402
1905-06 ...	346,822	69,306	18,187	7,365	10,324	93,219	93,652	30,378
1906-07 ...	345,691	80,869	27,657	8,520	11,966	95,728	47,704	28,712

Roughly one-third of the cropped area is now devoted to *rabi* crops, a marked diminution since settlement.

Land revenue.

The land revenue previous to the last settlement was Rs. 2·10 lakhs, and was increased at settlement to Rs. 2·55 lakhs, which absorbed 60 per cent. of the total mālguzāri assets. The average revenue per acre throughout the tahsīl is R. 0-12-7 as against R. 0-13-8 in Nāgpur, R. 0-11-6 in Umrer, and R. 0-13-0 in Kātol. For the purposes of settlement the tahsıl was divided into the following groups :—

(1). Thārsa—Khāt, being the most fertile portion on the south of the Thārsa plain, with 64 villages.

(2). Kodāmendhī, being the most fertile portion of the Sūr valley, with 69 villages.

(3). Dahegaon, being the somewhat jungly country at the north of the Sūr valley, with 36 villages.

(4). Rāmtek, including the western portion of the Sūr valley, with 63 villages.

(5). Dongartāl, a jungle tract on the Seonī border, with 72 villages.

(6). Chācher, or the western half of the Thārsa plain extending from the Pench to the edge of the Thārsa pargana, with 47 villages.

(7). Pārseonī, or the Pārseonī plain, with 41 villages.

(8). Bhiwagarh, or the hilly and jungly area to the north of the Pārseonī plain and extending to the Chhindwāra border, with 51 villages.

(9). Pātansaongī, or the *doâb* between the Kanhān and the Koilār, with 37 villages.

(10). Bāregaon, which borders the Kātol tahsīl, with 33 villages.

Miscellaneous.

The communications of the tahsīl are fair. The Nāgpur-Chhindwāra road, with its branch from Kamptee to Dahegaon, skirts the western border as far as Saoner, and the Great Northern Road runs north-east from corner to corner of the

tahsīl. The Bengal-Nāgpur Railway cuts across the south-eastern corner, and has stations at Sālwa, Thārsa and Khāt. A branch line from Kamptee to Rāmtek is approaching completion. Police Station-houses are situated at Rāmtek and Maundā.

Position and population.

Ramtek Town.—The headquarters town of the Rāmtek tahsīl, situated in 21°24′ N. and 79° 20′ E., 24 miles north-east of Nāgpur by road and 13 miles from Sālwa station. A branch road leads to Rāmtek from Mansar on the Great Northern Road and a railway line on the broad-gauge is now in course of construction to Rāmtek from Kamptee. The population of the town in 1901 was 8732 as against 7584 in 1891. The town lies round the foot of a detached hill forming the western extremity of the small Ambāgarh range. The name signifies 'The hill of Rāma'. Older names are Sindurāgiri 'The Vermilion Mount', and Tapogiri or 'The Hill of Penance', and both these occur in an inscription of the Lakshmana temple, dated in the 14th century. The stone of the hill when newly fractured appears almost of a blood-red colour when the sun is on it, and this effect is supposed to have been produced by the blood of the demon Hiranya Kashipu, slain here by Vishṇu in his Narsinha or Man-Lion incarnation.

Rāmtek hill.

On the hill, standing about 500 feet above the town, are a number of temples which can be seen gleaming in the sunshine from a long distance. To the south and west sides the hill is protected by a lofty natural scarp, and on the north it has a double line of defences. The inner one belongs to the citadel, and the outer, running below the citadel walls to the west, takes a sweep outwards and is carried across a narrow valley which leads down to the Ambāla tank. It is continued along the edge of the south side of the hill facing the town of Rāmtek. This outer fortification is now in ruins; it was of rude construction and is ascribed to the



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SIDE VIEW OF AMBALA TANK, RAMTEK.

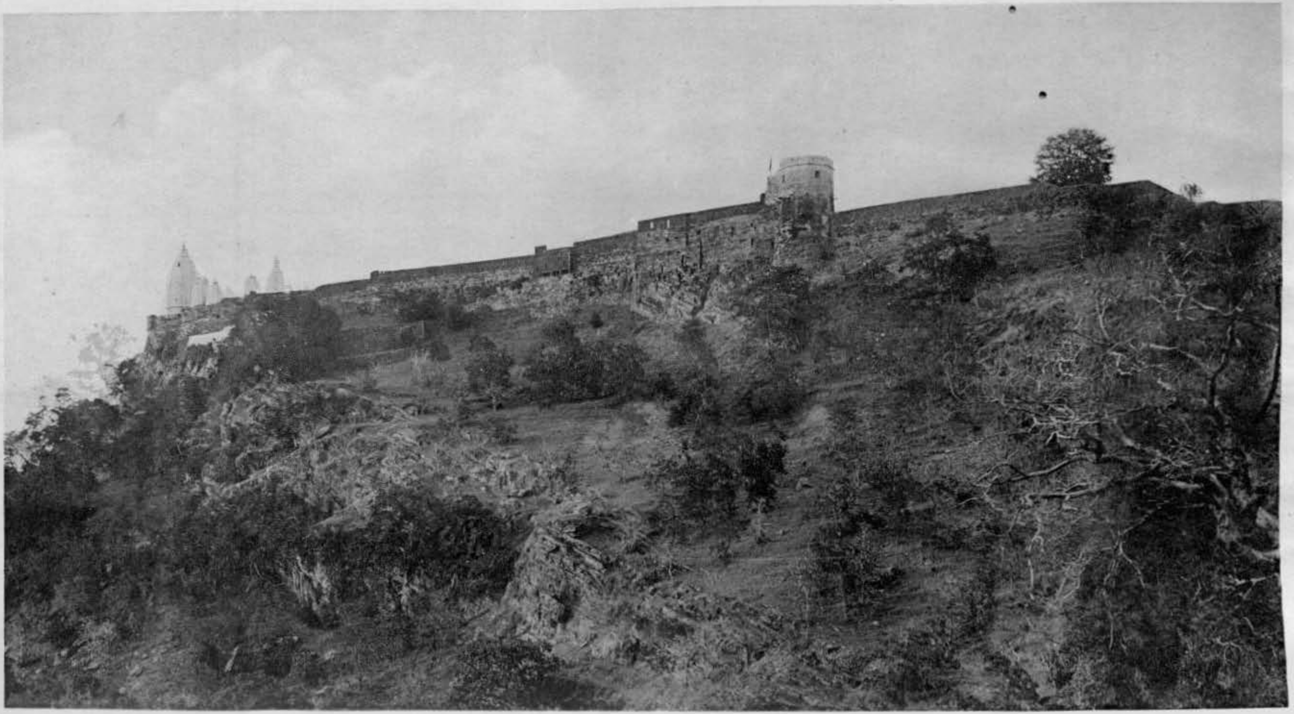
Gaolis. Within it was a considerable village, of which there are still traces to be seen. The citadel is at the western or highest extremity of the enclosure, having the chief temples at the apex of the angle. From the west end of the Ambāla tank, a flight of steps leads up the hill, at the opposite end of which another flight descends to the town of Rāmtek. All pilgrims, who go to worship at the temples, ascend the hill from the Ambāla flight of steps. Nearly at the top of the steps to the right is a very old stone-faced tank with a Dharmsāla or hostel. It is said that Narsinha, after killing the monster Hiranya Kashipu, threw away his cudgel on the hill with such force that it made the hole which now forms the tank. Close by are two temples of Narsinha with huge images.

The coming of Rāma.

Opposite to these temples is one which is known as that of Dhūmreshwar Mahādeo. About this temple it is told that in primeval times a Sūdra named Shambuka lived at Rāmtek and practised austerities, a prerogative of the higher castes, with such effect that he caused the untimely death of a Brāhman's son. On this Rāma came and cut off his head. The Sūdra was highly pleased at being so honoured in his death, and prayed to Rāma that he would abide for ever at Rāmtek, and that he, the Sūdra, might also be worshipped there. So Rāma took up his abode on the hill, and the Sūdra was turned into a *linga* over which the temple of Dhūmreshwar Mahādeo was built. And as a sign that Rāma has fulfilled his promise and abides here for ever it is said that from time to time a flame resembling the Morning Star plays round the pointed iron rod on the top of the temple. This phenomenon appears to occur in cloudy weather and to be the effect of an electric discharge. It is on account of the above exploit of Rāma and the belief that he took up his residence here that Rāmtek is invested with special sanctity.

The citadel and temples.

Further along the hill is a plain mosque said to have been built in memory of one of Aurangzeb's courtiers. From this a flight of steps leads up to the outer gate, a massive building which with all the outer line of walls belonging to the citadel was built by Raghujī I. This gate is called Varāh Darwāza, from a huge figure of the Varāh or boar incarnation of Vishnu which is placed just inside it. This figure is of great age and is referred to in the inscription as 'The Primeval Boar'. Pilgrims slide under its belly and anyone who by reason of his bulk or other cause is not able to do so is considered as a sinner. In this court is a temple of Krishna belonging to the Mānbhaos. The Singhpur gate in the second line of walls leads to the second court, and all this part of the citadel is much older than the outer walls. In the second court the Marāthās had an arsenal and a few old guns are still left. A very fine gateway called the Bhairava Darwāza, leads to the third court or citadel, the walls and bastions of which were restored by the Marāthās and are in good repair. In the court are the dwellings of temple-servants, who are said to number 160; this includes the dancing-girls, who receive monthly stipends. Beyond this is the Gokul Darwāza, through which strangers and the impure castes of Hindus are not admitted, leading into the last court. In the court is an arch on a platform, a half of which is dedicated to Ganpati, while the other half is claimed by the Kabīrpanthīs as their seat. Lakshman's temple stands in front and beyond it the great temple of Rāma and Sītā, while those of various other deities are arranged round the sides. Rāma's and Lakshman's temples have the outer door-frames plated with brass and the inner with silver. The idols are of black marble and are said to have been found in the Dudhāla tank after the original ones had been mutilated by a Muhammadan king. The temples are in the mediæval Brāhmanic style, and the entrance-court to the shrine is in both of them supported by eight massive pillars. There is



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VIEW OF THE CITADEL AT [illegible]

an inscription in Lakshman's temple, apparently engraved after their construction, and this shows that they are at any rate more than 600 years old.

Other temples.

Between the citadel and the traveller's bungalow are the ruins of a small shrine with a life-sized image of Vishnu in his Dwarf incarnation. This is considered by archæologists to be the oldest temple in Rāmtek; it is known to the people as the Bhāu Bahin temple. Down the hill is a very old temple of Kalinkā and some Jain temples of Shānti Nāth, whose image is about 18 feet long and has the sign of a deer. The temples are all modern, one of them, built about 50 years ago in the mediæval Brāhmanic style, being covered with beautiful carvings.

The Ambāla tank.

The Ambāla tank, which is lined with stone revetments and steps throughout, has many temples on its banks, most of which are of modern construction. Their appearance, however, is picturesque, and in the morning, when the sun is shining on the white temples, the view of the tank and hills is very beautiful. Among the temples is one of the rare ones to the sun. The story of the tank is that there was once a Sūryavansī Rājput king named Amba who was a leper. He happened to come to the spot where the tank now is while hunting, and feeling thirsty he took water from a spring and washed his face and hands with it, when to his amazement he found that the marks of leprosy disappeared from his skin where the water had touched it. He, therefore, excavated the spring, and from it came up the waters of Bhogāvati or the Ganges of the nether world. For this reason, people throw the bones of the dead into the tank, whose water is as sacred as that of the Ganges. The town has about 27 tanks, several of which are held to be sacred.

The annual fair.

A great religious fair is held at Rāmtek on the last day of Kārtik (November), lasting for 15 days, and a small gathering in April. The attendance at the fair is 60,000 or 70,000 persons, and on

the principal day a yellow silk cloth called Pitāmbar is burnt at the top of Rāma's temple in commemoration of the burning of the demon Tripurāsur whom Siva slew. A considerable amount of traffic in cloth and utensils takes place, and in 1905 as many as 43,000 bullock-carts and 14,000 horses are said to have been brought to the fair. The sales of produce are estimated at a lakh of rupees and the temples realise some Rs. 2000.

Rāmtek town.

Rāmtek is celebrated for its betel-leaf, and about 450 acres are devoted to the cultivation of the vine. The leaf produced here is considered a delicacy and is exported to Poona and Bombay. There are two sets of gardens known as the Māniktāl and the Mathurāsāgar. The town has not much trade, but about 50 mālguzārs of neighbouring villages reside here. It has a somewhat dirty and disreputable appearance for which the crowds of monkeys, who break up the tiled roofs unmolested, are partly responsible. Rāmtek was created a municipality in 1867, and the average municipal receipts for the decade ending 1901 were Rs. 8400. In 1905-06 they had risen to Rs. 13,000, of which Rs. 9000 were derived from octroi. The completion of the railway and manganese mines in the vicinity are likely to increase the importance of Rāmtek. A large irrigation reservoir is also in course of construction in the vicinity, a dam being thrown across a gorge of the Sūr river at an estimated cost of about Rs. 13 lakhs. The local institutions comprise an English middle school with about 70 pupils, Urdū and Marāthī primary schools, a girls' school and a mission boys' school, a dispensary, police Station-house and combined post and telegraph offices. On the temple hill is situated a dâk bungalow, to reach which entails a climb of a mile and-a-half from the town. This is well repaid, however, by its excellent situation and the enjoyment of the cool and fresh air on the hill. From the walls of the citadel, a beautiful view of the surrounding country is obtained. Rāmtek is owned by a respectable Brāhman family.

Ridhora.—A flourishing village on the Jām river, four miles south of Kātol. Its population was 2324 in 1901, chiefly of Kunbīs. The proprietary family were originally Marāthās, but some Kunbīs have acquired shares, and one has recently been appointed lambardār proprietor. Since then factions have arisen and the village is now notorious for the bitterness of its quarrels. The village grows fine cotton and juār crops, and its oranges are of exceptional quality. It has a weekly Sunday market. Ridhorā has one ginning factory, belonging to a Mārwāri firm of Hinganghāt, and a primary school with 68 pupils.

Saoner.—A considerable town lying on the Koilār river, twenty-three miles to the north-west of Nāgpur at the junction of the Chhindwāra and Itārsi roads, situated in 21°23′ N. and 78°55′ E. The country to the north and west rises to the Sātpurā hills but in the neighbourhood of the town and to the south and east the land is exceptionally fertile. Orders have recently been issued for the formation of a fifth tahsīl in the Nāgpur District. This will be probably the richest of the five, with Saoner as its headquarters town. In 1891 the population was 5555. Most of these are shop-keepers, mill-hands, weavers and dyers.

Descriptive.

Saoner is said to be mentioned in the Jaimini Ashwamedh under the name of Sāraswatpur, and there are many legends connected with it. Of the temples the more ancient are those to Ganpati and Mahādeo at the neighbouring village of Adāsa, which hill is said to have been one of the gates of a great ancient city.

Antiquities.

There are also remains of a large stone fort with corner towers built for protection against the habitual raids of the Pindāris.

Saoner was a town of importance under the Bhonsla dynasty and has been a municipality since 1862. The octroi tax was

Municipal undertakings.

abolished in 1876, and since then the municipal income has been small, but during the recent years of cotton prosperity it has been expanded to Rs. 9000, which is derived chiefly from a house-tax, a small conservancy cess, bazar dues, cotton-maket dues and cattle registration fees. Until very recent years lack of funds served to discourage municipal enterprise. Only the schools were maintained and some sanitation effected. But quite lately an excellent cotton-market has been constructed. It is nearly four acres in extent, is well fenced, and has a weighing machine and two wells. Near it land has been acquired by the town, and on this substantial dwellings and shops are being erected by private lessees.

Trade.

Most of the people of Saoner are Koshtīs who weave the ordinary cotton cloths, and some of the red dye is still produced, for which the town was at one time noted. A large weekly market is held on Fridays, at which the ordinary attendance is about 10,000. This is chiefly a cloth and cattle bazar. In the open season from two to three hundred cattle are sold weekly.

But Saoner like Kātol now depends chiefly on its trade in raw cotton. There are four ginning factories at work, two of which have presses. On the west Kātol town is a successful rival, and most of the cotton grown south of Saoner goes directly to the city. But a railway between Nāgpur and Saoner is projected and if from that point it is continued in three directions to Amraoti, Itārsi and Chhindwāra, it is practically certain that the trade of Saoner will develop very rapidly.

Public institutions.

The Saoner school, one of the largest in the District, includes an English middle school with 66 pupils, and a vernacular school with 200. The Scotch Free Church Mission maintains a school which is attended by thirty pupils of the poorer classes. This Mission has also an excellent dispensary.

A Government dispensary has been recently started, and it is at present housed in the *sarai*.

But many schemes of reform and expansion are in hand. Sites have been selected in the new town for such Government buildings as the tahsīl office, a dâk bungalow, and a new police Station-house. From subscriptions and donations a large new building is to be provided for the middle school and for the hospital, and a town hall is to be built.

Satpura Hills.—Nāgpur contains no part of the Sātpurā plateau, but it is bounded on the north by the Sātpurā Districts of Chhindwāra and Seonī. The lowlying hills on the western half of the border, from Berār to the Kanhān, are merely the foot hills of the great range, and form a step to the higher level of the Mohgaon country in Chhindwāra, which has to be crossed before the ascent of the Sātpurā plateau proper can be made. These hills have to a large extent been denuded of their vegetation and are mostly bare and uninteresting. From the Kanhān to the Pench the hills belong to the Sātpurā range proper and the ascent to the Khamārpāni plateau of Chhindwāra, which is a promontory of the Sātpurā tableland, is made a few miles this side of the Nāgpur border. Along this length the hills are well-wooded and picturesque, and there is some striking scenery on the Pench river. It is in this part of the range that the ruins of the old Gond fort of Bhiwagarh are situated. East of the Pench the hills are again more irregular, and gradually recede, and the Sātpurā plateau in Seonī is ascended by the Koraighāt some 12 miles beyond the northern frontier of this District. East of the Great Northern Road to Seonī and Jubbulpore only small hills are found, until the Bāwantharī river, which here divides the District from Bhandāra, is reached.

It is on and among these hill ranges east of the Kanhān and as far as the Bāwantharī that the only large block of Government forest in the District is situated, and cultivated villages are scattered thinly here and there in valleys, or on

the banks of the three rivers mentioned. They are, however, more numerous and compact in the country lying on either side of the Seonī road, known as the Dongartāl tract. This country is very pleasing and well-wooded, open glades alternating with patches of forest and clearings of cultivation. Mahuā trees and tanks abound and the Gond villages, with their clean little streets and neat back gardens, have a far more picturesque appearance than the monotonous mud walls of the more imposing houses in the rich villages of the plain country.

Sawargaon.—A large village in the Kātol tahsīl, about ten miles north of Kātol and thirty-six miles from Nāgpur. The population was 3284 in 1901, as against 3534 in 1891, and is not increasing. The people are mainly agricultural, but there is a small dyeing industry. A sanitation fund has been in existence for some years, but village sanitation in Sāwargaon is rendered unusually difficult by the water-courses which enclose the village on all sides. The villagers desire to have public latrines erected, and with a higher assessment and careful management of the fund they ought to be able to build suitable structures in a few years. There is a bi-weekly market, held on Mondays and Thursdays, and the village has a primary school with 95 pupils, a post office, and a police outpost about to be abolished. A small temple to Mahābīr stands in the middle of the village. It is built of a fine compact yellow clay, obtained locally, and its carved panels and scrolls are of exceptionally clean workmanship and design. There are also the remains of a mud fort, built as a protection against the Pindāris.

Sirsi.—A village in the Umrer tahsīl about 17 miles south-west of Umrer on the Wardhā border near Girar. The population was about 2100 in 1901, having declined from 2400 in 1891. The village lies in the valley of a large stream flowing into the Nānd river. There is a weaving industry which is now on the decline and a few years ago the thatched houses were constantly being burnt down. The

village is large and straggling and has a poor appearance. The water-supply is also deficient. The name is derived from the *siris* tree (*Albizzia Lebbek*) which grows abundantly in the vicinity. Sirsi has a vernacular middle school and a police outpost which will be converted into a Station-house. It is proposed to raise a sanitation cess. The proprietor is a Marāthā Brāhman widow.

Sur River.—A river which rises in the hills west of the Seonī road and following a most erratic course, cuts its way through a narrow gorge in the Rāmtek range, and flows eastward part the town of Aroli and Kodāmendhī into Bhandāra, where it joins the Waingangā. The Sūr is remarkable for the shallowness of its bed, the level character of the land immediately on its margin, and the fertile properties of this land in producing sugarcane and garden crops. But its chief importance now is derived from a very notable irrigation scheme for which it has been selected. This consists of a large reservoir close to Rāmtek, and twenty-six miles north-east of Nāgpur. It is estimated to cost 13 lakhs and will submerge over eight square miles of land, on which six villages are situated. The total catchment area will be eighty-two square miles, the water-supply from which is calculated to afford irrigation to sixty square miles of cultivated land in years of drought. The main dam will be across the gorge of the Sūr river in the Rāmtek hills.

Takalghat.—A large village in the Nāgpur tahsīl, 19 miles south-west of Nāgpur, and four miles from Borī station, situated on the Krishnā river. The population increased to nearly 2000 in 1901 from 1460 in 1891. The old southern road passes through the village and a good track connects it with Borī. Near the village are a number of mounds and rough stone circles covering five acres, from which have been dug fragments of pottery, flint arrow-heads and ironware, evidently of great antiquity. The village has a primary school and has been partitioned into four shares, the largest being owned by a Kunbī.

Umrer Tahsil.—The Umrer Tahsīl occupies the central and south-eastern portions of the District, lying between 20°35′ and 21°11′ N., and 78°56′ and 79°40′ E. In shape it is a rough parallelogram. The only notable geographical feature of the tahsīl is the broad belt of hills, a continuation of the Kondhāli hills of the Kātol tahsīl and the Keljhar hills of the Nāgpur tahsīl which run from north-west to south-east into the Chānda District. The rest of the tahsīl is a broad undulating plain traversed here and there by broken ranges of hills and cut up by several rivers. Its area is 1040 square miles, of which 73 are Government forest.

Descriptive.

The population of the tahsīl in 1881 was 134,061; it rose to 149,350 in 1891, but fell to 136,476 in 1901, showing a net increase over the twenty years of less than 3 per cent. The total density is 131 persons per square mile and the rural density 116, both figures being the lowest in the four tahsīls. Umrer tahsīl contains only one town, Umrer itself, with a population of 15,943, the third largest town in the District. It possesses seven large villages with populations of over 2000, wherein it is surpassed only by the Kātol tahsīl, and five villages with a population of between 1000 and 2000. Of its 678 revenue mauzas only 449 are inhabited, an unusually low proportion.

Population.

As far as the composition of soils goes Umrer is the most favoured of the four tahsils. It has 2 per cent. *kāli*, 74 *morand*, 23 *khardī*, and only about one per cent. of *bardī* and *retāri* soils. Four-fifths of its land is capable of producing wheat. Its rainfall too is usually in excess of the District average. Nevertheless for reasons never fully explained the Umrer tahsīl is the most backward in the District and always suffers most in bad seasons. The explanation may lie in the unusually large number of streams and nullahs which cut up the surface of the plain in all directions and render the drainage undesirably rapid and complete in an area devoted largely to

Agriculture.

rice and *rabi* crops. The total area of the tahsil at last settlement was 618,000 acres, of which 433,000 were occupied and 340,000 were under cultivation. The remaining 30 per cent. of unoccupied area consists of two-thirds forest and grass and one-third unculturable land. The crop statistics since settlement are as follows:—

Year.	Total cropped area.	Total area under						
		Rice.	Cotton.	Juār.	Tūr.	Wheat.	Til.	Linseed.
1896-97	293,916	16,668	8,886	41,787	13,657	87,087	26,378	37,573
1897-98	314,782	16,795	9,469	53,004	15,570	101,415	15,407	33,387
1898-99	302,449	17,365	8,684	39,923	12,265	98,436	12,048	41,373
1899-1900	290,907	7,745	10,352	59,137	18,116	52,211	33,479	27,028
1900-01	325,228	12,883	28,280	71,989	21,763	51,058	26,898	25,550
1901-02	333,858	15,722	22,225	70,428	16,776	87,499	4,059	37,442
1902-03	342,452	10,142	39,869	77,094	20,312	75,094	23,218	30,871
1903-04	347,638	12,312	55,692	58,524	15,972	86,678	17,977	35,946
1904-05	354,780	9,609	69,124	63,141	18,683	90,997	14,307	24,897
1905-06	361,911	9,688	92,448	54,289	19,640	90,798	6,509	30,536
906-07	361,141	11,313	65,073	52,022	16,350	100,538	7,304	43,103

The area under *rabi* crops has fallen considerably since settlement, as it has in the other tahsils, but still occupies considerably more than half the total cultivated area.

Land Revenue.

The land-revenue demand before the last settlement was Rs. 1·98 lakhs, and was raised at settlement to Rs. 2·46 lakhs, which absorbed 60 per cent. of the total mālguzāri assets. The land revenue per acre works out at R. 0-11-6, the lowest rate of the four tahsīls. The following groups were formed at settlement :—Wāroda (with 36 villages), Belā (28), Tītur (31), Jaoli (56), and Sirsī (81), all of which are wheat areas; Kuhī (62), Mandhāl (46), Veltur (78), and Umrer (69), in which both wheat and rice are grown; Bhiwāpur (54), a rice tract; and Makardhokrā (77) and Chimnājhari (33), which are jungly and hilly groups.

Miscellaneous.

Umrer town is the only municipality in the tahsīl, and contains the only police Station-house. The communications of the tahsīl are poor at present, but a narrow-gauge railway from Nāgpur to Umrer is under construction by the Bengal-Nāgpur Railway Company, and is nearing completion. The tahsīl has three metalled roads, from Umrer to Borī (the nearest station on the Great Indian Peninsula Railway); from Nāgpur to Umrer; and from Umrer to Mūl in the Chānda District.

Umrer Town.—The headquarters town of the Umrer tahsil, situated in 20° 52′ N. and 79° 20′ E., 29 miles south-east of Nāgpur on the metalled road to Mūl and Chānda. The town lies on the high plain forming the watershed of the Amb and Māhru rivers, and the fields lie between the town and the latter river. It contains a Marāthā fort partially ruined, and inside it a temple with walls 17 feet thick, which was dedicated to Siva but is now deserted. The temple shows the influence of Muhammadan style and cannot therefore be very old. The fort is supposed to have been built by Rājā Karan Shā of the Chānda Gond dynasty in the 16th century. The population in the last four years

of census was as follows:—1872, 11,394; 1881, 14,247; 1891, 15,180; 1901, 15,943. Umrer is the 17th town in the combined Provinces in size. Its wealth has much increased in the last thirty years, and the Koshtī weavers have collected in it from the neighbouring towns and villages, and are on the whole a thriving community. The staple industry of the town is the weaving of cotton cloths with silk borders by hand. White loin-cloths with red borders are generally woven, the thread being dyed with lac. About 10,000 persons are dependent on the industry and it is estimated that the value of the exports of silk-bordered cotton goods is as much as two lakhs a year. No octroi is charged on the import of raw silk. The manufacture of *dhotīs* has created a small subsidiary industry of silk-dyeing, which is carried on by Patwīs. There is also a considerable community of Telis or oil-pressers.

Umrer was created a municipality in 1867 and the average annual receipts and expenditure for the decade ending 1901 were Rs. 17,400. In 1905-06 the receipts amounted to Rs. 21,000, of which nearly Rs. 13,000 were derived from octroi. Umrer has an English middle school with 59 pupils in 1904-05, primary schools for boys and girls, a private Urdū school and a dispensary. There is a police Station-house and an inspection bungalow has been erected. A town hall was built in 1896 at a cost of Rs. 2500. A cattle-market is held on Sundays, at which sales are registered, the receipts in 1905-06 being Rs. 250. There are several irrigation tanks, and betel-vine and garden crops are grown. The village is owned by Mr. Malak of the Mehdibāg community of Nāgpur, but the Deshmukh lands are held separately, and the betel-vine gardens are owned by the community of Barais.

Veltur.—A large village in the north-east of the Umrer tahsīl, lying close to the Bhandāra border and about 20 miles from Umrer. The population was 2167 in 1901, and practically the same in 1891. The village has a primary school, a post office and a police outpost, and a small cess is raised for

sanitation. According to tradition Veltur was founded by a man of the Mahār caste, but the present proprietor is a Kalār.

Wainganga River.—The Waingangā only forms the boundary between the Umrer tahsīl and Bhandāra for a short distance, but through its tributaries the Pench, Kanhān and others it receives the drainage of about two-thirds of Nāgpur District. Near Veltur the beautiful hills of Katghar Ambhorā mark the junction of the Amb with the Waingangā. These hills are sacred and the view from their summit, disclosing a fertile country studded with tanks and groves, is a striking one. The range is continued across the river in the Bhandāra District and the islands of rock in mid-stream show how at some remote time the great river must have burst through the rocky barrier which blocked its way.

Wakori.—A large village in the Rāmtek tahsīl, three miles from Khāpa on the road to Patānsaongī and on the Kanhān river. The population was about 2500 in 1901 and had declined by more than 200 in the preceding decade. Wild plums of good quality are grown in the village. A large number of Koshtīs reside here and women's *sāris* or body-cloths are woven, while the shrine of a Koshtī saint in Wākorī is held in great veneration locally. The village has a school and belongs to a Brāhman proprietor.

Wardha river.—An important river of the Province, giving its name to the Wardhā District. In Nāgpur the Wardhā drains only a very small tract of land, consisting of the fertile Amner pargana, in the extreme north-west of the Kātol tahsīl. A description of the river is given in the volume on the Wardhā District.

Wathora.—A small village in the Kātol tahsīl, 20 miles north-west of Nāgpur, and on the Chandrabhāga stream. It contains some of the circles of stones which are known to the people as the encampments of the Gaolīs. They say that some centuries ago a Gaolī king reigned over the tract between the Godāvari and the Nerbudda. His people wandered from place to place with their cattle, halting where fodder

was plentiful and seeking better pastures when they felt a scarcity impending. The stone circles are supposed to have been their encampments, but what purpose they could have served is not apparent.

Wunna River.—A river which takes its source near the hill of Mahadāgarh, among the outlying spurs of the Pilkāpār range, and flows along the northern base of the Kauras plateau as far as Hingnā, 12 miles from Nāgpur ; it then takes a southern course through Gumgaon to Borī, where it is crossed by the bridge of the Great Indian Peninsula Railway. Continuing a southern direction as far as the village of Ridhorā, it bends sharply westwards, and passing the town of Belā, leaves the District at Ashtā, passing into the Wardhā District, on the borders of which it joins the Wardhā river. Its total length is 88 miles.